

Modern

V28

12

LITHOGRAPHY

DETROIT PUBLIC LIBRARY

DEC 15 1960

DEPARTMENT 114

Black and White: Forgotten
Litho Product

Collecting Lithographs

New Look at Zinc

Web-Offset Terms

QC Instruments

Five Ways To Make a Profit

Colortran Lighting

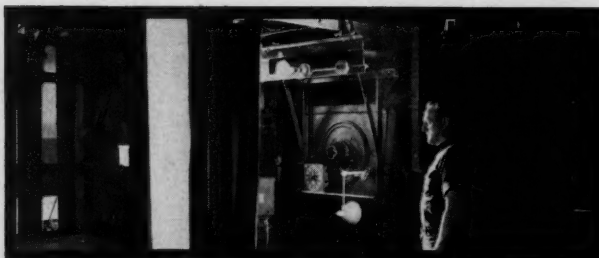
this issue

DECEMBER, 1960



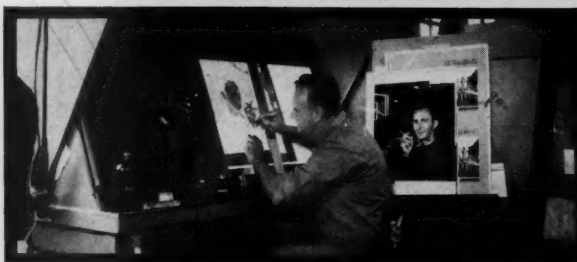
**Cameraman
Ed Bines**

because it "cuts down annoying time wasting make-overs! Its ability to hold the finest line and screen dot is remarkable."



**Dot Etcher
Jim Woodruff**

because "its thin coating gives extremely sharp reproduction of half-tones. Uniformly dense dots, unsurpassed for dot-etching!"



**Stripper
Bill Ward, Sr.**

because "thin base Litholine makes it easier to strip up line and halftone... especially butting negatives... or when superimposing film on film."



**Shop Foreman
Al Steitz**

because "at every step, from camera to press, the uniformly high quality of Litholine saves us hours of work, has been a vital 'factor' in speeding up production."

Because Quality Counts at Every Stage...

Empire Color Lithographers Prefer GEVAERT



The Customer...

who appreciates Gevaert's contribution to his high quality end result.

Gevaert Litholine, available in a wide range of coatings and base materials, is the highest-contrast Litho emulsion on the market. Product of world-famed GEVAERT, makers of high-quality sensitized materials for over 65 years, Litholine assures consistently sharp screen dots and high resolution separation of fine lines. Its extremely high density half-tone reproduction is excellent for dot-etching.

Write for free samples of Gevaert Litholine today:

THE GEVAERT COMPANY OF AMERICA, INC.

321 West 54th Street, New York 19, N. Y.

District Offices: Lincolnwood, Ill. (Chicago) • Los Angeles • Dallas • Denver • San Francisco

Litholine Ortho O 84p — maximum contrast, highest sensitivity, latitude, resolution. Heavy .010" polystyrene base.

Litholine Ortho O 81 — thin .003" base for line or screen positives and negatives.

Litholine Ortho O 82 — same emulsion, regular .006" base.

Panchromatic P 24p — a fast pan emulsion, with long gradation, wide latitude in exposure and development. Ideal for color separation work, on .010" polystyrene base.



Pressman's Favorite!



The R & P Silver Gray Tru-Dot Blanket

You can take the word of the pressmen themselves that no other blanket is so soft, so receptive . . . so strong, so firm. Every dot is transferred from plate to paper clean, and clear, and crisp. You get rich full solids *and* flawless fidelity in tones.

Pressman Robert E. Cahill (that's Bob you see installing an R & P Silver Gray Tru-Dot Blanket at

Independence Press, Inc., Philadelphia) says: "... it gives me every advantage I ever dreamed of in an offset blanket."

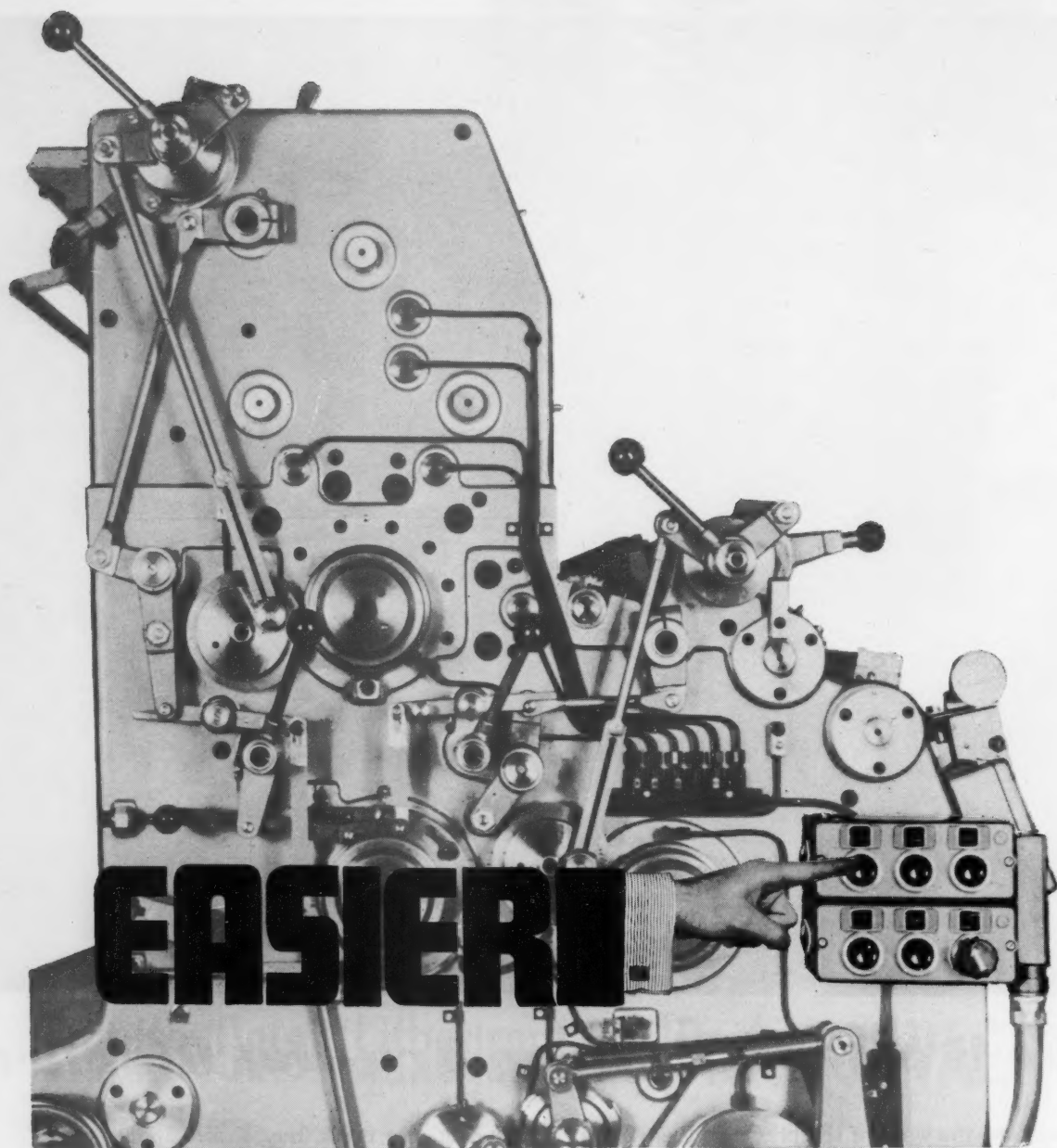
Your R & P representative can demonstrate just how *you* can benefit from these advantages. And, if you print web-offset, he has information of *special* interest.

ROBERTS & PORTER

INCORPORATED

CHICAGO • NEW YORK • BOSTON • BALTIMORE • CINCINNATI • CLEVELAND • DETROIT
KANSAS CITY • LOS ANGELES • MILWAUKEE • PHILADELPHIA • SAN FRANCISCO

R & P



ROYAL ZENITH PUSH-BUTTON 23", 25", 30" SINGLE COLOR OFFSET PRESSES

EASIER TO RUN: all floor-level operation, no platforms to climb...all controls at arm's length right on the press. Push-button start, stop, reverse and forward jog, variable speedup and slowdown, safe. Duplicate controls at delivery end, too.

Simple feeder settings with all hand-knob controls. No need to clear the feedboard. Vacuum holds stream in position; just pull out faulty sheet and go on with your run.

ROYAL ZENITH CORPORATION Service and parts nationwide on a 24-hour basis.
180 VARICK STREET, NEW YORK 14, N. Y. ■ LOS ANGELES, CALIFORNIA ■ CHICAGO, ILLINOIS

Plus quick, easy plate clamping, fast wash-up with swivel ink fountain.

EASIER TO HANDLE: Men who've run only letterpress equipment handle Royal Zenith presses confidently and easily produce perfect sheets and high output with minimal training.

Send for the whole story—full feature-for-feature comparison of Royal Zenith with all other makes on the market.



Cover

As in the past several years, our cover this month is devoted to several of the excellent lithographed Christmas cards produced by the Metropolitan Museum of Art, New York. The Museum offers an out-of-the-ordinary group of cards each year, using famous paintings and sketches. A majority are produced by offset.

WAYNE E. DORLAND
Publisher

HAMILTON C. CARSON
Editor

PAUL J. GEIGER
Associate Editor

HERBERT P. PASCHER
Technical Editor

RALPH DORLAND
Advertising Manager

RICHARD STEARNS
District Manager

CLIFFORD B. LINDEMAN
Circulation Manager



Feature Articles

Black and White . . . the Forgotten Litho Product	32
<i>By J. Tom Morgan</i>	
Union and Management Can Solve Their Problems	34
<i>By Mendel Segal</i>	
Collecting Lithographs	37
LTF Takes a New Look at Zinc	38
<i>By Dr. Paul J. Hartsuch</i>	
What Instruments Are Needed for Quality Control?	40
<i>By Louis D. Pollner</i>	
Web-Offset Terms	42
Five Ways To Make a Profit	44
<i>By Herbert W. Sayers</i>	
Impressions of an Old-Timer	47
<i>By Roger F. Callahan</i>	
Colortran Lighting System	48
<i>By Milton Forman</i>	
Annual Index of Articles in Modern Lithography for 1960 . .	50

Departments

Meeting Calendar	19
Litho Schools and Trade Directory	19
Editorials	31
Technical Briefs	55
Technical Section: Photographic Derivatives	56
<i>By Donald R. Spear</i>	
Photographic Clinic	59
<i>By Herbert Paschel</i>	
Through the Glass	62
News About The Trade	69
Metal Decorating Section	93
Litho Club News	97
Equipment, Supplies, Bulletins	103
Classified Advertisements	117
Local Buyers' Guide	119
Index To Advertisers	121
Tale Ends	122

MODERN LITHOGRAPHY

VOLUME 28, NUMBER 12

DECEMBER, 1960

SUBSCRIPTION RATES: One year, \$4.00; two years, \$7.00. Canada and Pan America, one year, \$5.00; two years, \$9.00. Foreign, one year, \$9.00; two years, \$15.00. Group subscription (U.S. only) Four or more entered as a group, \$2.50 each, (Canada: \$3.00) (May be sent to different addresses.)

SINGLE COPIES: current issue: \$.50; all back numbers \$1.00. Postage and handling charges for foreign countries on single copies: \$1.00. Claims for missing numbers not allowed if received more than 60 days from date of mailing. No claims allowed from subscribers outside U. S. because of failure to notify Circulation Department of change of address, or because a copy is "missing from files."

PUBLISHED MONTHLY on the 5th by Industry Publications, Inc., Publication office: Box 31, Caldwell, N. J. Advertising rates made known on application. Closing date for copy—5th of the month preceding month of issue. Second class mailing privileges authorized at Caldwell, N. J., with additional entry at New York, N. Y.

Address all correspondence to Box 31, Caldwell, N. J.

Change of Address: Allow 30 days. Give old and new address.



THOR OFFSET



In a few words . . . table flat, precision cut, strong, opaque. Color, the *quiet-white* that gets things read. Important. Bergstrom reprocessing *tames* wild paper fibers and you're assured superb dimensional stability, one pass or four.

Another Bergstrom exclusive . . . packed in self-sealing cartons, cartons that *reseal* for *reuse*. Thor® samples from your paper merchant, or wire . . .

BERGSTROM PAPER COMPANY
NEENAH, WISCONSIN

beautiful papers thoughtfully packed

NEW... from Du Pont Research

CPM



Cronar  Pan Masking Film. The latest graphic arts product from Du Pont featuring a clear backing, .007" base, a superbly balanced emulsion and special surface. Because of these features, you can expect:


- **"Improvement in pastel colors and the correct amount of diffusion for camera-back masking. Result: reduced handwork."**

Tony Paladino, Camera Foreman, Foote & Davies, Atlanta, Ga.

- **"Excellent registration, better diffusion, plus no drawdown problem such as Newton's rings in premasking of transparencies."**

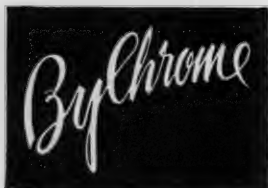
John Bond, General Superintendent, J & O Kencolour Division, Jahn & Ollier Engraving Company, Chicago, Ill.

For a technical data sheet on CRONAR Pan Masking Film, see your Du Pont Technical Representative or write: E. I. du Pont de Nemours & Co. (Inc.), Nemours 2432, Photo Products Department, Wilmington 98, Delaware. In Canada: Du Pont of Canada Limited, Toronto.

 Symbol and CRONAR are Du Pont trademarks for polyester graphic arts films. This advertisement was prepared exclusively by Phototypography.



Better Things for Better Living... through Chemistry



SCREEN TINTS

Incomparable quality! Available in 6 values, 133 and 150 line rulings, 20 x 24 in. reg. base film. 1 per tube. \$95.00 per doz. \$52.50 per ½ doz. Singly, \$10.00 each.



COMMERCIAL TINTS

Truly fine quality. Available in 12 values, 133 and 150 line rulings, 20 x 24 in. reg. base film. 1 per tube. \$5.85 each.



2-COLOR GUIDE

118 2-color sheets in 3-ring binder with technical data. 195 precisely predictable colors per sheet \$22.50.



PUNCH & REPEAT

Complete system, with instructions. P&R Machine, Manual, 1 doz. brass pins. \$99.50.



Box 1077, Columbus 16, Ohio, U.S.A.

Available through leading Graphic Arts Suppliers around the world.

All prices FOB Columbus, Ohio, subject to change without notice.

Attention

Lithographers • Engravers • Gravurers

electronic color scanning

You may be qualified for a ByChrome Franchise under which you could purchase continuous or halftone positives, halftone negatives and/or lithographic plates, directly from the ByChrome Laboratory.

The above materials are processed from electronically scanned and color corrected separation negatives. Copy may be color transparency or reflection color.

You know the ByChrome reputation for quality.

For samples, price data and Franchise requirements, write M. C. Byrum, President, ByChrome Company, Inc.

The facilities of other Byrum Companies could be of additional interest.

Byrum-Jones Advertising, Inc.

Byrum Lithographing Co., Inc.

Byrum-Graphic Research Org.

ByChrome Company, Inc.

Columbus 16, Ohio



PHIL SILVERS, CBS-TV STAR

Maximum Uniformity! Sheet after sheet you can count on trouble-free press performance from Consolidated Offset Enamels. That's because every sheet is *double coated* for maximum uniformity, greater stability, more pick resistance—all around finer quality. They run better—print better—look better. Yet Consolidated double coating doesn't cost you a cent more. Ask your Consolidated Merchant for free test sheets. Make a test run. Compare quality, press performance and results.

Fair enough? Available only through your Consolidated Paper Merchant

DOUBLE COATED OFFSET: Productolith, Consolith Gloss, Consolith Opaque

Consolidated

**WORLD'S LARGEST SPECIALIST
IN ENAMEL PRINTING PAPERS**

A COMPLETE LINE FOR OFFSET AND LETTERPRESS PRINTING
Consolidated Water Power & Paper Co. • Natl. Sales Offices, 135 S. La Salle St., Chicago

Chemco MARATHON

ALL NEW 24" x 24" ROLL FILM CAMERA



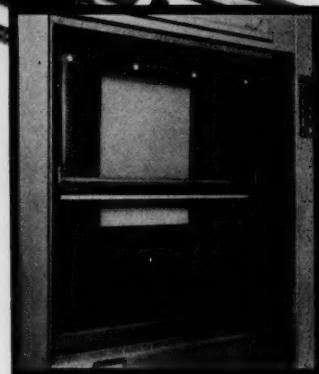
with
automatic
roller applied
contact screen

Now, for the first time, engravers and lithographers can make contact screen halftones with roll film speed and economy in a 24" camera.

The new Marathon is based on the proven design of Chemco's famous Model F Series roll film cameras but incorporate these outstanding advancements:

- Holds two screens in any combination of the following:
 - Rectangular—up to 24" square
 - Circular—up to 23½" diameter
 - Contact—automatic, up to 18" x 22"
- Has single knob film control
- Has new guillotine type cut off knife
- Has simplified diaphragm control
- Restyled with all controls designed for maximum operating simplicity
- Color accessories available

Let us prove to you that the Marathon camera, through roll film speed and economy, costs less to own and operate than any other camera of its size.



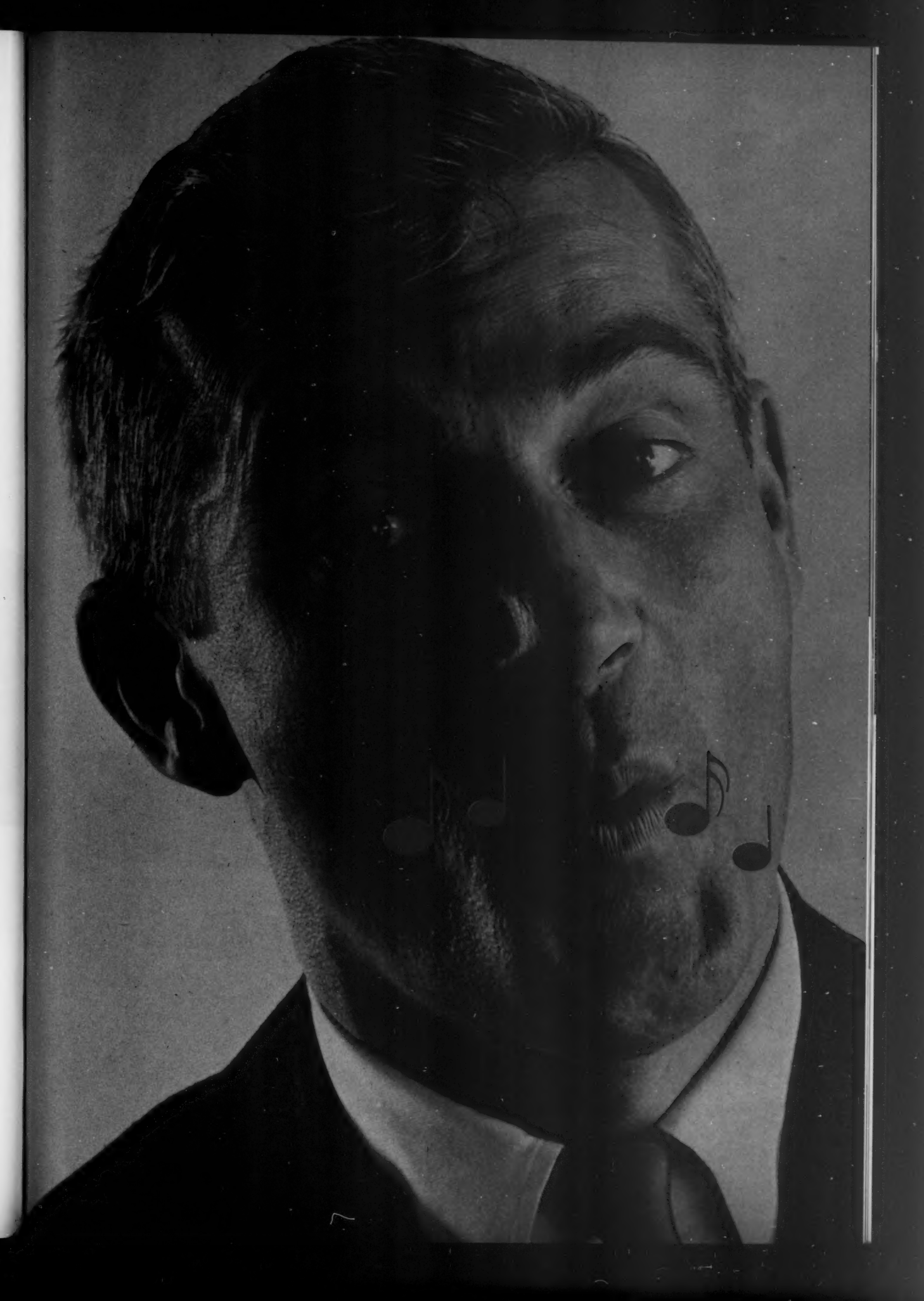
AUTOMATIC CONTACT SCREEN MECHANISM, an exclusive Chemco development, saves time, eliminates handling and increases screen life.



CHEMCO PHOTOPRODUCTS COMPANY, INC. Main office and plant—Glen Cove, N. Y.

Atlanta • Boston • Chicago • Cleveland • Dallas • New Orleans • New York

Exclusive West Coast Agents: California Ink Company, Inc. • Exclusive Agents in Canada: W E Booth Company, Ltd.



"I'M WHISTLING

while I work

because CROMWELL Offset Packing is of uniform thickness across the sheet • no lost time building up low spots"

And Cromwell Offset Packing is specially treated to eliminate slip. It *will not* creep under the blanket. Its hard, smooth finish eliminates "mushing out", even on a million run! The caliper and grain direction are printed on every sheet so you can't make a mistake. Arrows are placed every 10 inches for easy measurement.

All Cromwell Offset Packing, of which this caliper .005 is a sample, is unconditionally guaranteed for uniformity of thickness.

These advantages add up to quicker make-ready and no down-time or paper loss because of packing failure. And remember, the money you save when you avoid pressroom delays is your own!

Cromwell Offset Packing and Tympan are furnished in rolls or sheets in calipers .002 to .010, .012 and .015. Minimum quantities, one roll or 500 sheets cut to your specifications.



Cromwell paper company

180 North Wabash Avenue • Chicago 1, Illinois • DEarborn 2-6320

Manufacturers of: Papers (Impregnated • Coated • Laminated • Reinforced Flexible) • Bags • Sacks • Liners • Covers • (Single and multiwall construction, using all types of material to carry, cover or protect all types of products).

Please send information on Cromwell Offset Packing.

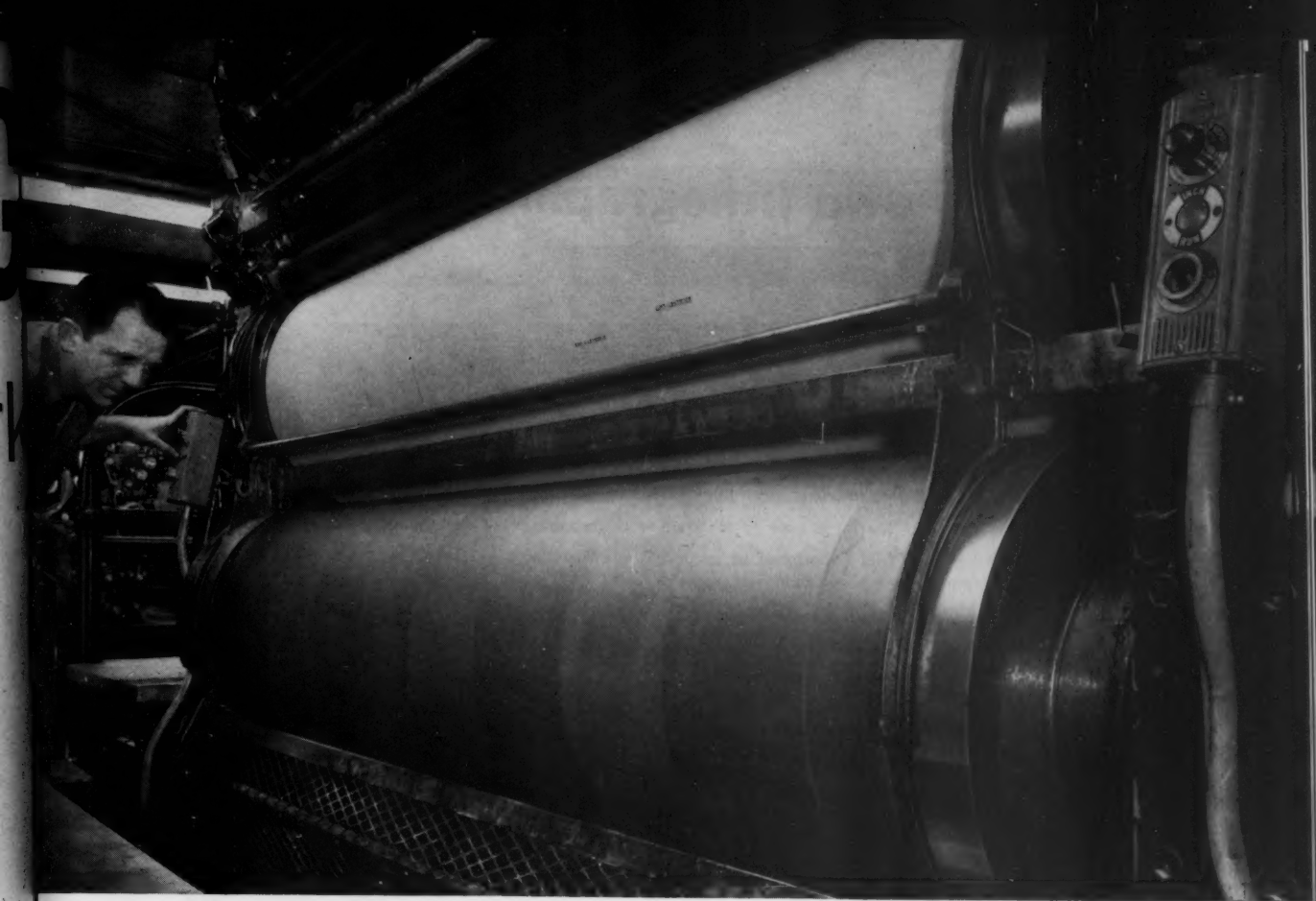
1 2 3

Name _____ Title _____

Company _____

Street _____

City _____ Zone _____ State _____



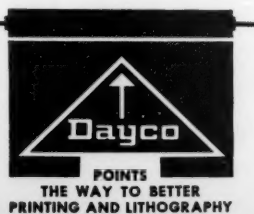
For quality that never varies

Dayco Gold Seal® Blankets and Tru-Face® Offset Rollers

Gold Seal Blankets and Tru-Face Rollers are built to work perfectly together with any stock . . . on any press.

Gold Seal Blankets are built to the closest possible tolerance limits for absolute uniformity. They have no high or low spots and will not swell, emboss or peel. Gold Seal's exclusive construction provides faster recovery after "blanket mash" for truest fidelity of reproduction. What's more, blanket stretch has been reduced to even less than 2%.

Dayco Tru-Face Rollers are unaffected by seasonal weather changes or internal heat build-up, maintaining their exact dimensions at all times. In addition, they are virtually non-porous and have an ultra-smooth finish, reducing wash-up time to an absolute minimum . . . with no chance of bleed back. ©Registered T.M., Dayco Corporation. ©D.C. 1960



Dayco Department
Dayton Industrial Products Co.

Melrose Park, Illinois

Division of Dayco Corp.

West Coast Distributors:

Farwest Ink Co., Seattle;
Albert Ladymon, Dallas;
Walter W. Lawrence Co., Inc.,
Los Angeles;
George W. Shively Co.,
San Francisco.

In Canada: The Dayton
Rubber Co., Ltd., Toronto.

Do you own lithographic equipment?

Do you know . . .

1. What hourly costs are for lithographic operations?
2. What is a fair mark-up on paper, film, ink, plates, and outside purchases in so far as you, your salesmen, and your customers are concerned?
3. Do you have your own lithographic production standards?
4. When you work unscheduled overtime, how can you recover this cost from customers?
5. What is a fair way to compensate lithographic salesmen?
6. Where you can see forms used to schedule work through many well-managed lithographic plants?
7. What has been the experience of other lithographers with various kinds of pre-sensitized plates, new equipment and supplies coming on to the market?
8. What is the best kind of self-advertising for a lithographer?
9. Where you can secure building and floor plans for lithographic plants recently built?
10. Where can you secure an outline of the job duties of all officers, superintendents, foremen, and key personnel in a lithographic plant?
11. Where can you get case histories on Trade Custom disputes dealing over ownership of negatives and plates, etc.?
12. When the economics of a lithographic plant justify adding additional presses, photo composing, and graining equipment, etc.?
13. What the Fotosetter, the Photon, masking in the camera, etc., will mean in the future?
14. How you can secure Budgeted Hourly Rates for your plant?

These are vitally important questions, every one of which deals with the management of your business both today and tomorrow. You, no doubt, have many more questions on your plant operations on which you would like to have prompt and sound answers.

The NAPL constantly receives requests for every kind of information from its large and growing membership in the United States and other countries. The NAPL has answered all of the above questions and many more. If you are a lithographer, a printer, a firm who sells the industry, or even if you have no equipment, you can have complete information of every phase of lithographic management by joining in our aggressive trade association work. We offer a great deal for very little.

This coupon can bring you the answers . . .

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS
317 West 45th Street, New York 36, N. Y.

.....1960

We hereby make application for enrollment as an active (Associate) Member in the National Association of Photo-Lithographers.

We enclose herewith \$..... as our first year's dues.

ANNUAL DUES FOR THE PRESS EQUIPMENT IN OUR PLANT IS AS FOLLOWS:

No. of Presses	ACTIVE MEMBERS (Those who operate lithographic equipment)	
	Presses smaller than 17" x 22" (Minimum Dues \$50.00 per year)	\$20.00 per press per year \$
	Presses 17" x 22" to 22" x 28"	\$28.00 per press per year \$
	Presses larger than 22" x 28" up to and including 35" x 45"	\$37.00 per press per year \$
	Presses larger than 35" x 45"	\$47.00 per press per year \$
	MINIMUM DUES, \$50.00 per year. Maximum Dues, \$450.00 per year.	
	ASSOCIATE MEMBERS — Equipment and Supply Dealers, \$125 per year.....Total Annual Dues \$	

Firm Name of Individual.....

Address City Zone..... State

Signed Phone

**NEW
ANSCO**



**REPROLITH® ORTHO TYPE B
A NEW STANDARD
IN DIMENSIONAL STABILITY**

Here's an all new *cast* polycarbonate base that not only has superb dimensional stability, but sets a new high in impurity-free, crystal clear base materials.

Anso Plestar is manufactured with greater filtration before casting. This means greater clarity and a crisper image.

And you can get this superb base material coated with Anso's time-tested Reprolith Ortho Type B emulsion. This combination produces a harder dot and a new high in scribing characteristics.

Try this great new material today. Anso, Binghamton, New York, A Division of General Aniline & Film Corporation.

Anso

Plestar

IDEAL
dependable
press aids

Ideal products help maintain pressroom efficiency and finished-product quality:

Ideal Tantone (Synthetic) Lithographic Rollers
Ideal Masterlith (Vulcanized Oil) Lithographic Rollers
Lithocraft Lithographic Rollers
Durack Ink Storage Drum Rollers
Koralone (Plastic) Typographic Inking Rollers
Plast-O-Damp® System of Measured Moisture
Synthox (Synthetic) Letterpress Rollers
Ideal Typocraft (Solid Synthetic) Rollers
Ideal Inkmaster (Vulcanized Oil) Distributor Rollers
DX Synthetic Newspaper Rollers
Flexocraft Rollers
Impression Rollers (all types)
Ideal Process Coated Rollers
Ace Graytone Rollers
Coating and Varnishing Rollers
Textile Rollers
Rotogravure Impression Rollers
Paper Mills Rollers
Ideal Photoengravers' and Litho Proof Rollers
Waxing Machine Rollers
Rubber Gluing Rollers
Tanning Machine Rollers
Rubber Friction Rollers (all types)
Pull and Draw Rollers
Rubber Blanket Rollers
Fabric-Covered Rollers

Other Ideal Products Guaranteed to Render Exceptional Service

Ideal Process Surfacing Machines

Ideal Automatic Sectioning Machine (for split-fountain work)

Cutting Rubbers

Surfacing Compositions

Special Rubber and Synthetic Molded Items

Rubber and Synthetic Plate Gums

Sticktite Rubber Plate Adhesives

RE-NU-ROL Roller and Blanket Conditioner

IDEAL ROLLER & MANUFACTURING CO.

2512 W. 24th St.
Chicago 8, Ill.

21-24 Thirty-ninth Avenue
Long Island City 1, N.Y.

6069-6073 Maywood Ave.
Huntington Park, Cal.

5238 Peachtree Road, NE
Chamblee, Ga.

33 Stirrup Brook Highway
Marlboro, Mass.

Brevities

JOHN A. RICHTER and John Metcalf have been elected vice presidents of the Blade Printing & Paper Co., Toledo, O.

ML

AMERICAN PRINTING & LITHOGRAPHING Co., San Francisco, has added two new 29" H.M.C. Jewel offset presses.

ML

F. RICHARD EICHORN has been elected the new president of the Rochester Club of Printing House Craftsmen.

ML

HENRY KOPEL, former art director for Lasky Co., Newark, N. J., has formed an art, type and advertising design service in Maplewood, N. J.

ML

REFLECTIONS, the house organ of E. P. Schmidt Co., Milwaukee Lithographers, recently won the best of industry award in the annual contest sponsored by the Direct Mail Advertising Association.

ML

AMERICAN WRITING PAPER CORP., Holyoke, Mass., has appointed S. R. Leon Co., Inc., New York, to handle all trade and consumer advertising and promotion.

ML

CROWN ZELLERBACH CORP., named D. J. Benjamin, vice president for packaging, and W. J. Zellerbach, vice president, marketing services, to its board of directors.

ML

DR. CLIFFORD E. HERRICK JR., director of research and development for Ozalid Division of General Aniline & Film Corp., has resigned.

ML

STECHE-TRAUNG LITHOGRAPH CORP. has appointed Edward W. Quinlan as manager of folding carton sales in the Rochester Division.

ML

FRANK C. CORLEY, Corley Printing Co., St. Louis, has been elected to the board of directors of the Master Printers Section of Printing Industry of America.

SCOTT PAPER CO., Chester, Pa., has appointed Kenneth G. Pointer to its Hollingsworth & Whitney Sales Division as printing paper coordinator.

ML

EUGENE J. MURPHY, 76, salesman for 45 years with Peerless Litho Co., Chicago, died late in August.

ML

INTER-COLLEGIATE PRESS of Can-

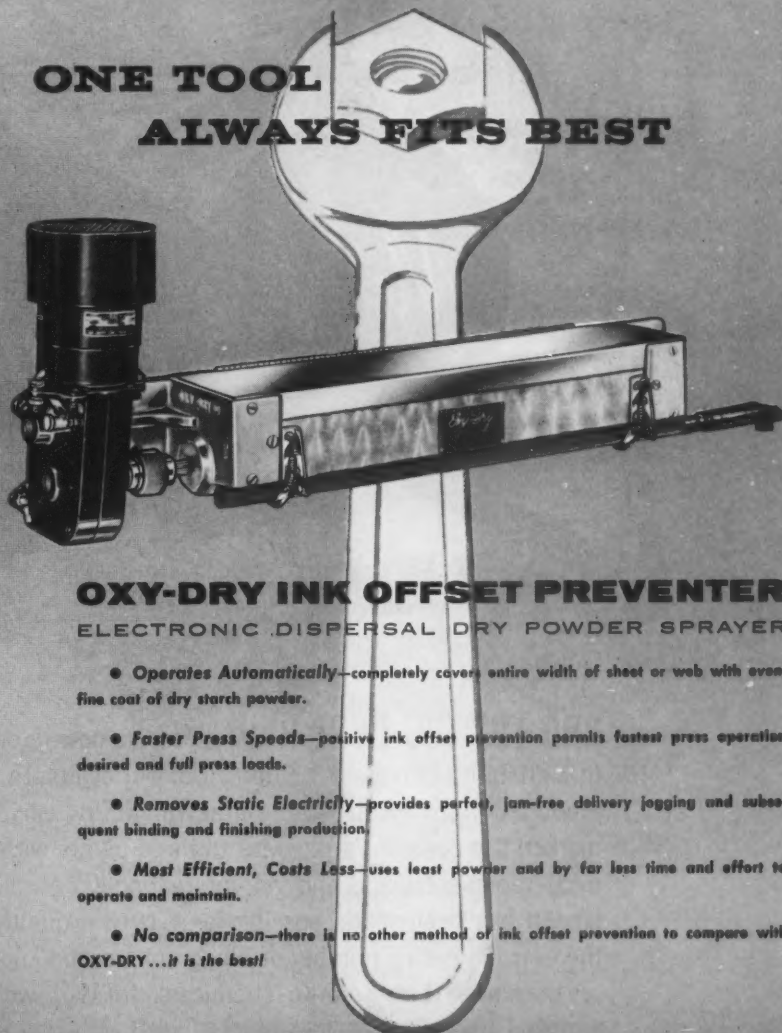
ada Ltd. is erecting a printing plant and offices in Winnipeg, Manitoba, which will cost \$107,000.

ML

Publish Controversial Clauses

LPNA recently sent to its members collected copies of all the so-called controversial clauses which have been incorporated in various union contracts around the country in recent months.

ONE TOOL ALWAYS FITS BEST



OXY-DRY INK OFFSET PREVENTER ELECTRONIC DISPERSAL DRY POWDER SPRAYER

- **Operates Automatically**—completely covers entire width of sheet or web with even, fine coat of dry starch powder.
- **Faster Press Speeds**—positive ink offset prevention permits fastest press operation desired and full press loads.
- **Removes Static Electricity**—provides perfect, jam-free delivery jogging and subsequent binding and finishing production.
- **Most Efficient, Costs Less**—uses least powder and by far less time and effort to operate and maintain.
- **No comparison**—there is no other method of ink offset prevention to compare with OXY-DRY...it is the best!

HOW TO
BUY
OXY-DRY

DON'T DELAY PROFITS — If you want a head-to-head, barrel-head deal done, our sales-engineer will visit you promptly. If you want us to DETAIL YOU BY MAIL, send us your press or converting machine specifications. Do it, don't delay profits!

OXY-DRY

SELLS PROFITS TO
PRINTERS & CONVERTERS

OXY-DRY SPRAYER CORPORATION

NEW YORK CHICAGO SAN FRANCISCO

1134 W. Montrose Avenue, Chicago 13, Illinois—LC 1-4254



and for the best in '61 resolve now to use LITH-KEM-KO chemicals. In 1961 Litho Chemical & Supply Co. will celebrate 31 years as the outstanding producer of chemicals for the lithographic industry. Steady, healthy growth has marked the company's progress to three plants with a nation-wide staff of technical representatives, and an international network of capable dealers. This growth has been made possible only by the quality of chemicals sold and by the ever increasing number of lithographers who know that for better lithography ... they need Lith-Kem-Ko chemicals. In 1961 we hope to number you as a satisfied user. Happy New Year!

LITHO CHEMICAL & SUPPLY CO., Inc.

46 HARRIET PLACE, LYNBROOK, NEW YORK
4227 WEST 43RD STREET, CHICAGO 32, ILLINOIS • 1418-22 SANTA FE AVENUE, LOS ANGELES 21, CALIFORNIA

Litho Schools

Canada—Ryerson Institute of Technology.
School of Graphic Arts, 50 Gould St.,
Toronto, Ont., Canada.

Chicago—Chicago Lithographic Institute, 1611
W. Adams St., Chicago 12, Ill.

Cincinnati—Ohio Mechanics Institute, Cincin-
nati, Ohio.

Cleveland—Cleveland Lithographic Institute,
Inc., 1120 Chester Ave., Cleveland 14, Ohio.

Houston—Univ. of Houston, Cullen Blvd.,
Houston 4.

Los Angeles—Los Angeles Trade Technical
Junior College, 1646 S. Olive St., Los
Angeles 15, Calif.

Minneapolis—Dunwoody Industrial Institute,
818 Wayzata Blvd., Minneapolis 3, Minn.

Minneapolis Vocational High School, 1101
Third Ave. South, Minneapolis 4, Minn.

Nashville—Southern Institute of Graphic Arts,
1514 South St., Nashville, Tenn.

New York—New York Trade School. Litho-
graphic Department, 312 East 67th St., New
York, N. Y.

Manhattan School of Printing, 72 Warren
St., New York, N. Y.

Oklahoma—Oklahoma State Tech., Graphic
Arts Dept., Okmulgee, Okla.

Rochester—Rochester Institute of Technology
Dept. of Publishing & Printing, 65 Plymouth
Ave., South Rochester 8, N. Y.

Pasadena—City College, 1570 E. Colorado St.,
Pasadena, Cal.

Philadelphia—Murrell Dobbins Vocational
School, 22nd and Lehigh, Philadelphia, Pa.

Pittsburgh—Carnegie Institute of Technology
School of Printing Management, Pittsburgh.

San Francisco—City College of San Francisco.
Ocean and Phelan Aves., Graphic Arts De-
partment.

St. Louis—David Ranken, Jr., School of Me-
chanical Trades, 4431 Finney St., St. Louis 8,
Mo.

Vancouver—Clark College.

West Virginia—W. Va. Institute of Technology.
Montgomery, W. Va.

Trade Directory

Internatl. Assn. Ptg House Craftsmen
P. E. Oldt, Exec. Sec'y.

Room 307; 411 Oak St., Cincinnati 2.

Lithographers and Printers National Association
Oscar Whitenhouse, Exec. Dir.

1025 Connecticut Ave., N.W., Wash., D. C.

Lithographic Tech. Foundation

William H. Webber, Exec. Dir.

131 East 39th St., New York 16, N. Y.

National Assn. of Litho Clubs

Edward M. Harwood, Executive Sec.

430 S. Clark St., Chicago 5, Ill.

National Assoc. of Photo-Lithographers

Walter E. Soderstrom, Exec. V.P.

317 West 45th St., New York 36, N. Y.

National Metal Decorators Assoc., Inc.

James G. Smith, Secretary

P.O. Box 506, Crawfordsville, Ind.

Printing Industry of America

Bernard J. Taymans, Mgr.

5728 Connecticut Ave., N.W., Washington, D.C.

Meetings

Lithographic Technical Foundation, Educational
Committee meeting, March 13, 1961; Mem-
bers' and Directors' meetings, March 14,
1961; Research Committee meeting, March
15, 16, 1961; all meetings in Sheraton
Blackstone Hotel, Chicago.

Web-Offset Section, PIA, annual meeting, Edge-
water Beach Hotel, Chicago, April 19-21,
1961.

Lithographers and Printers National Association,
annual convention, Arizona Biltmore Hotel,
Phoenix, Ariz., April 30-May 3, 1961.

National Association of Litho Clubs, 16th an-
nual convention, Dayton Biltmore Hotel, Day-
ton, O., May 4-6, 1961.

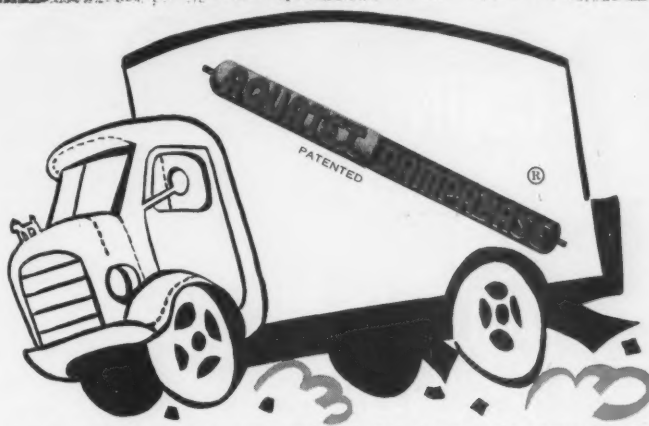
Research & Engineering Council, 11th annual
conference, Hotel Fort Des Moines, Des
Moines, Iowa, May 11-24, 1961.

Technical Association of the Graphic Arts, 13th
annual meeting, Hotel Deshler-Hilton, Colum-
bus, O., June 12-14, 1961.

National Association of Photo-Lithographers,
29th annual convention and exhibit, Hotel
Commodore, New York, Sept. 27-30, 1961.



Yes Sir!
Mr. Lithographer,
we deliver
Aquatex and
Dampabase
immediately . .



Order Aquatex and Dampabase from your lithographic supplier today. There is an ample supply of these great coverings in the particular size you need. Remember—you can order by the roll, packed in the center-release carton for easier handling, or in cut lengths to fit any size roller. Be sure to state material size or the diameter and length of the roller to assure a perfect fit.

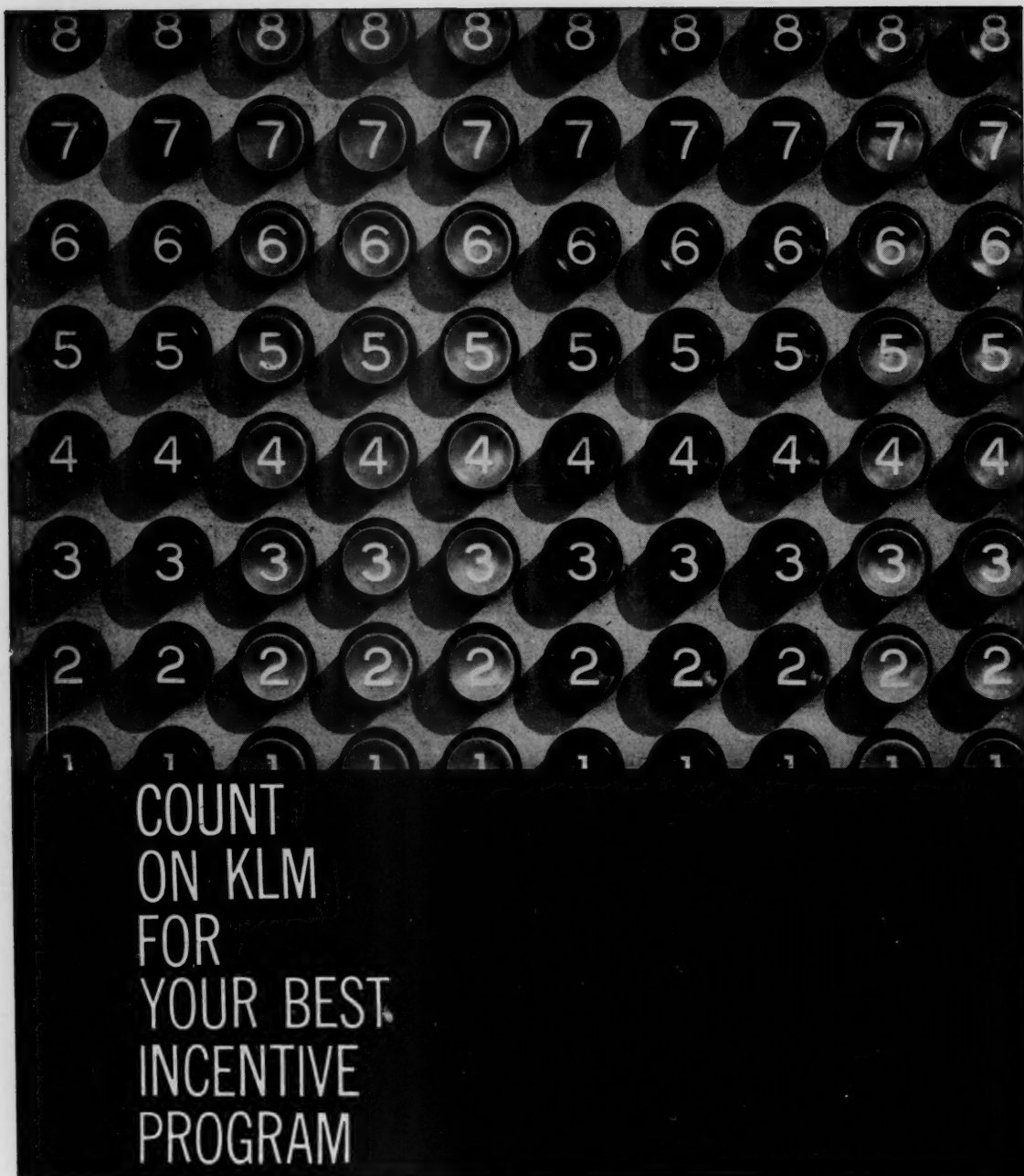
Prompt efficient service is an important asset to you. When every minute counts—order Aquatex and Dampabase.

They're better because they're Seamless

GODFREY ROLLER COMPANY

Roller Makers for 95 Years • WILLIAM P. SQUIBB, President

211-21 NORTH CAMAC STREET, PHILADELPHIA 7, PA.



COUNT ON KLM FOR YOUR BEST INCENTIVE PROGRAM

Looking for the right incentive program? Look no further! KLM offers a complete package with practical suggestions and **all the material** you will need to run a successful program. In addition, KLM has the widest choice of incentive tours: to Europe, the Caribbean, Far East, around the world. Each tour is flexible — each can be tailored to fit your company budget. For complete information, mail the coupon.

KLM Royal Dutch Airlines
Incentive Travel Department AA-120
609 Fifth Avenue
New York 17, New York

Please have a KLM specialist call on me to outline my incentive program and tour possibilities.

Name _____
Company _____
Address _____
City _____ Zone _____
State _____



THE
WORLD'S
FIRST
AIRLINE



ALBERT GOMMI

For the finest reproduction ...

Kromekote®
BRAND

CAST COATED PAPERS

THE CHAMPION PAPER AND FIBRE COMPANY • HAMILTON, OHIO

*Number Fifty-two in a series of textural studies designed to show
the quality of reproduction possible with fine materials*

© THE CHAMPION PAPER AND FIBRE CO. 1960





Kromekote®

BRAND
CAST COATED PAPERS

FOR THE FINEST REPRODUCTION

The uses for Kromekote are limited only by your imagination. Its mirror-like surface and unsurpassed reproduction qualities make it the most versatile paper you can use. And the more you use it, the more uses you will find for it. Take a good look at the four-color demonstration on the other side of this sheet to see what we mean.

Kromekote does so much more for so little it's no wonder it has long been the favorite

of printers and lithographers who know that Kromekote belongs where quality counts. See your local paper merchant for—

Kromekote®

BRAND CAST COATED PAPERS

Enamel • Cover • Box Wrap
Litho • Postcard • Folding Board

THE CHAMPION PAPER AND FIBRE COMPANY, HAMILTON, OHIO



FOR FULL INFORMATION ON HOW THIS ADVERTISEMENT WAS PRODUCED, WRITE OUR ADVERTISING DEPARTMENT, HAMILTON, OHIO

ATF Typesetter "Retnec System"

simplifies tricky composition problems

This issue of ATF News was composed on the ATF Typesetter.

The words you are now reading were first set on the Typesetter Keyboard Unit, a machine about the size of a typewriter. This unit produced a type-written proof and a coded tape.

The coded tape was then fed into the Typesetter Photographic Unit, a machine not much larger than the first, which set the copy, inserted the italic or bold, spaced the words, justified and spaced the lines, and produced a sharp finished image on photographic paper ready for the platemaker—all with a beam of light and the strip of coded tape.

One of the fringe benefits of tape controlled machines is their unique ability to follow a reverse sequence with no loss of speed or precision. For example, if the coded tape that controls the photographic unit of the ATF Typesetter is inserted in reverse, it will set "god yzal eht revo spmuj xof nworb kciuq ehT" just as fast as it will set "The quick brown fox jumps over the lazy dog."

On strictly mechanical coded tape controlled machines, this ability to follow a reverse sequence is rarely used. On most machines, it is useless.

However, because the ATF Typesetter is a photo-mechanical machine, this ability to follow a reverse sequence has been developed into a practical and useful feature. For ATF Research has combined the Typesetter's mechanical reversibility of sequence with photography's inherent reversibility of image and has developed three practical methods of obtaining exact vertical or horizontal centering and positioning of set lines with one keyboard operation.

We call these methods the "Retnec" methods of composition. ("Retnec" is "Center" in reverse, and reverse centering is the technique common to all four "Retnec" methods.) With the "Retnec" methods it is now possible, with a single composing operation, to center

and position set lines with a degree of speed, and precision of position, unmatched by any other method of composition. With a single composing operation vertical heads can be set in exact alignment. With a single composing operation name and address listings, column headings, directory columns, price lists, etc., can be simultaneously set, centered and positioned. With a single composing operation the precise positioning required for magnetic ink imprinting, business forms composition, circuit and diagram printing etc., can be obtained.

One of the "Retnec" methods merely uses a reverse composing technique and a specific size change gear. The other "Retnec" methods employ special reverse type discs ("ONE-EIGHTY DISCS") designed to work with reverse sequence tapes. All of the "Retnec" methods can be used on standard ATF Typesetters equipped with these inexpensive "Retnec" accessories.

While the "Retnec" methods greatly extend the versatility of the ATF Typesetter in coping with these costly and time consuming composition problems, they are only a part of the whole ATF Typesetter story. Even before the development of these methods, the ATF Typesetter has demonstrated that it can handle the composing needs of such diversified fields as map printers' plants, yearbook publishers, trade composition plants, daily and weekly newspapers, university publishing plants, and industrial plants requiring specialized chart, circuit and diagram printing. Most important of all, it has shown that it can handle these diversified needs at a lower initial cost and a lower operating cost than any other equipment on the market today.

So, no matter how tough your composition problem is, why not take a good look at the versatile ATF Typesetter as a possible solution? Ask your ATF representative for advice—there's no obligation.

For examples of "Retnec" in use, and descriptions of the various methods, see the next page.



ISSUE
NO. 10

AMERICAN TYPE FOUNDERS, ELIZABETH, N. J.

Vertical Retnec

This sample of "Vertical Retnec" was done with one keyboarding operation. Here's how:

The characters were keyboarded in reverse sequence.

After keyboarding each character, the operator added the amount of space needed to make the character equal to the maximum possible character width. In other words, each character was assigned an identical "space quota"—the equivalent of an "m" or a "w".

The operator then inserted the coded tape into the photographic unit, in reverse, so that the space codes were interpreted before the character codes. A half-size change gear was used in the photographic unit to exactly center each character within its individual "space quota".



WALTER ADAMS MARY ADAMS 1234 NORTH VERMONT SAN PEDRO, CALIFORNIA		NO. _____
PAY TO THE ORDER		90-1069 1222
OF _____	19 _____	\$ _____
DOE COUNTY TRUST COMPANY COMPTON BRANCH		DOLLARS
⑆ 1222 ⑆ 1069 ⑆ 600 ⑆ 2345 ⑆		

Formatic

Mrs. Austin Barbrey
P. O. Box 84
Simpsonville, So. Car.

MRS. WILMA NIHART
602 South 12th Street
Dade City, Florida

A. C. JOHNS
3106 Templeton Gap Road
Colorado Springs, Colorado

GEORGE REXFORD'S
Route #3 - Box 70
Lynden, Washington

REYNOLD'S
Wingren Court #803
Ketchikan, Alaska

RICHARD BARKER'S
426 East 5th Street
Port Angeles, Washington

CONNIE COCKING
10975 Bluffside, PO 19335
Apt. 17, No. Hollywood, Calif.

BARBARA RIGNEY
11500 S. W. 55th Street
Miami 55, Florida

WALTER DEL BIAGGIO
3115 California Street
Eureka, Calif., HI 35434

Multi

Formatic Retnec

This demonstrates "Formatic Retnec", a single, semi-automatic keyboarding method especially developed for high precision, high production, repetitive composition such as business forms and magnetic ink check printing with E13-B coding.

More on Formatic-Retnec in another issue of ATF News.

Multi-Retnec

Multi-Retnec is designed for any application requiring multi-columnar centering. This sample was composed with one keyboard operation.

After keyboarding the characters—

in normal sequence—the operator added exactly one-half of the remaining space units allotted to each column's "space quota." Special scales calibrated to the required column measures made this fast and easy. Ordinary typewriter tabs were set for inter-column spacing.

The coded tape was then inserted into the Typesetter Photographic Unit in reverse, so that the space codes were interpreted before the character codes. This automatically centered each segment of the composition within its own column's "space quota."

To get "right reading" composition from the reversed tape, a special type disc on which the characters are turned 180 degrees was used.

New York Printer finds ATF Green Hornet ideal for long and 'overnight' jobs

"Before we know it, we've got half a million copies!" reports Mr. Phil Mancini, partner in the Lithographing Printing Mailing Corp. of New York City. "The Green Hornet really does nice work. We run many quality two-color jobs on it— chiefly letters, circulars, bind-in envelopes, business reply cards and folders. We find it is a particularly good press for jobs which must be turned out 'overnight' ... and be right."

Lithographing Printing Mailing Corp. has recently moved to new, ultra-modern quarters at 11 Beach Street. In addition to the Green Hornet, which is a standard two-color model with an imprinting unit, the firm operates two ATF Chief 15's, two Chief 29's, an

ATF-Gerson Multiplater photocomposing machine, and ATF cameras and stripping tables.

"Although we have never had a really simple job where we could really let the press go," says Mr. Mancini, "we regularly get 20 to 25 thousand sheets per hour from it." Register is easy to maintain, he reports, as long as the rolls of stock are in good condition when put on the press. "We can't miss because the Green Hornet is so fast!"

His pressman and helper find that 72 pound index is the heaviest stock they can run efficiently when printing two colors on both sides. Normal stock range for the press is from 12 lb. bond to 80 lb. offset. When plan-

ning jobs for the Green Hornet, solids are generally held to about 25% of the area. Halftones and ben days can be larger. The imprinting unit on the press gives them the opportunity to provide a third color for small areas— such as for signatures on form letters or spots of color on circulars or coding on cards.

Although it depends on the types of jobs and their sequence, at Lithographing Printing Mailing Corp. the smallest practical run on the Green Hornet is thought to be a little less than 50,000 impressions. On the average, the company runs 1-1/2 shifts on this press throughout the year. Hourly costs are estimated at between \$9.50 and \$10.00.

Continued on page 4

Owners praise ATF Chief 126 performance

Proof of performance of any printing press must come from customers who buy and use it. Here, less than a year after its introduction, are the comments of purchasers of the 20 x 26" ATF Chief 126:

Chicago, Illinois printer is "very pleased with the press, its ease of operation, speed and versatility. We wanted the newest, most modern press on the market, and in the Chief 126 we feel we have it." (And they are going to pair it up, too!)

New York, N. Y. customer, who purchased the Chief 126 for jobs requiring 17-1/2 x 22-1/2 full printing area, and for heavier ink coverage, after running the 126 several months reports "production of 40,000 per day against 28,000 maximum" on his 22.

A Miami, Florida printer likes his Chief 126 "because the 20 x 26" size falls into the specific range of color work I do."

A Los Angeles, California purchaser "wanted a press that would handle 9 x 12 as well as 8-1/2 x 11. We are extremely happy with the other excellent features (speed, coverage, sheet control and register)."

New York, N. Y. customer is "averaging 6,000 to 11,000 more impressions per day on the Chief 126 than I was able to obtain from comparable jobs run on our 22. Also, I prefer the stream feeder of the 126 over the sheet by sheet of the 22."

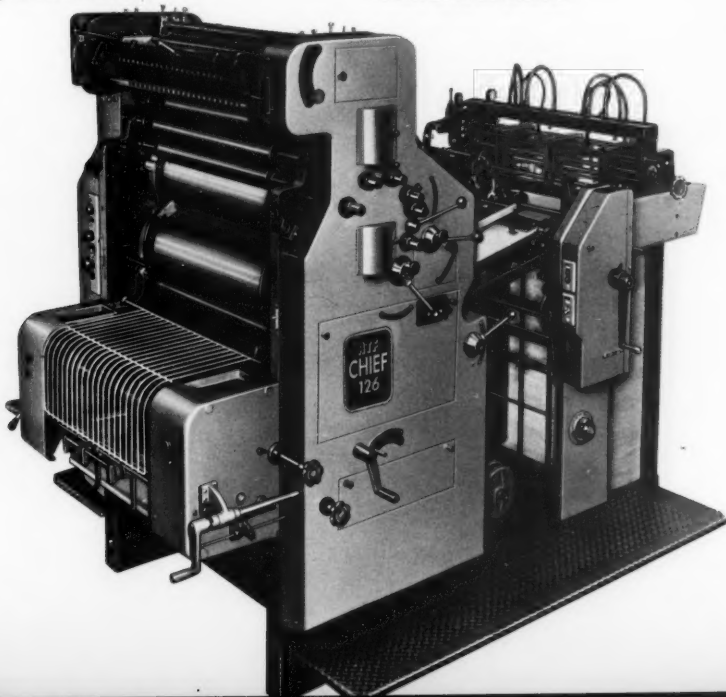
From New York, N. Y. "been operating this press for approximately four months. It is a tremendous press—runs fast as hell—and is a fabulous machine. Can get-away just as fast on the Chief 126 as on our 17 x 22" press."

Peoria, Illinois customer: "needed 20 x 26 for 9 x 12 bleed and improved ink coverage. Well pleased with the Chief 126 press—operation surpasses my expectations. Simplicity of operation, dot for dot register at high speeds, good production make it an extremely profitable press."

Newark, N. J. printer: "liked the speed and sturdiness I saw during demonstration of the Chief 126. After running it a couple of months, I find that it is an excellent production machine, much faster than my 17 x 22" and a simple press to work on."

Des Moines, Iowa printer who does "a great deal of color work; like the fine inking mechanism, 9 x 12 bleed and close register at high speeds."

From these owner-comments, you can see that the ATF Chief 126 has rapidly acquired a reputation which is difficult to match in the 20 x 26" field. If you have not yet investigated the profit potential it offers in your plant, may we suggest you discuss it with your ATF Representative? Or, if you prefer, write to ATF News, 200 Elmora Avenue, Elizabeth, N. J., for full information and a sample press sheet in four colors.



SHOP HINTS

Apply fountain solution or other chemicals the easy way: use a squeeze-type plastic bottle with a nozzle tip or small hole, such as those used for hand lotion, lemon juice, etc. Wash bottle thoroughly. Fill by dipping nozzle in solution and squeezing bottle. (Applying chemicals this way keeps hands dry, avoids rashes.)

Arro Merijohn, Pressman
Mutual Planograph Co., Chicago, Ill.

Editor's Note: ATF now sells a special, easy-to-fill plastic bottle for this purpose.

Keep your linecasting machines clean by supplying your operators with one-inch paint brushes. They're excellent for brushing off metal shavings, excess graphite, etc.

Don Lane, Scott Printing Company
Jersey City, N. J.

Handle fresh repro proofs safely—and faster—by spraying them with one of the clear aerosol artists' fixative solutions, available from any art supply store.

R. R. Hernandez
Stebb's Printing and Stationery Store
Los Angeles, Calif.

ATF pays \$10 for hints accepted for publication.
Send yours to ATF News.



DORSEY E. BIGGS, Typesetter Sales Supervisor for ATF, has been active in some phase of the graphic arts all his life. He started with a direct mail agency and "sudden service" printing shop and later owned and operated an outdoor advertising business. In 1927 he entered the newspaper business, and subsequently became publisher of a daily, owner of a commercial printing plant, and served as a professional appraiser and plant broker. He planned and installed the first seven offset newspapers in Florida during the 1940's, and later helped dozens of newspapers throughout ten southern states convert to offset. He joined ATF in 1947 as a Sales Representative, was appointed Typesetter Product Manager for the South in 1958, and Typesetter Sales Supervisor for the entire country in 1960. He is the author of numerous articles on printing.

At Your Service...

ATF's nationwide service organization handles hundreds of press service calls every week—many of which could have been prevented had pressmen used a little more care. Take, for example, the matter of miscellaneous items left on the feed board which eventually travelled through the cylinders and caused major or minor repair jobs. Among items reported have been these: Allen Wrenches (miscellaneous sizes), Open End Wrenches (miscellaneous sizes), Screwdrivers, Nuts, Bolts, Screws, Springs, Rags, Ink Knives, Pliers, and a Pack of Cigarettes. Most of the tools couldn't be salvaged... neither could some of the cylinders!

One more or less unavoidable accident resulted when a live sparrow lit on a press and went through (but who left the window open?).

The moral, of course, is: Don't put anything on the feed board. And when you're ready to start the press, check to be sure the press is clear—in fact, say "Press Clear—Press Button" before you press the start button.

Despite many difficulties, the ATF Service Department continues to receive words of praise from many customers for services performed. Here are a few more:

From Arcade, New York: "I would like, at this time, to extend a word of praise and a pat on the back to your company for the wonderful way in which you have handled the sale and installation of our rebuilt Chief 20 offset press. Your serviceman should be commended for the excellent service rendered by him."

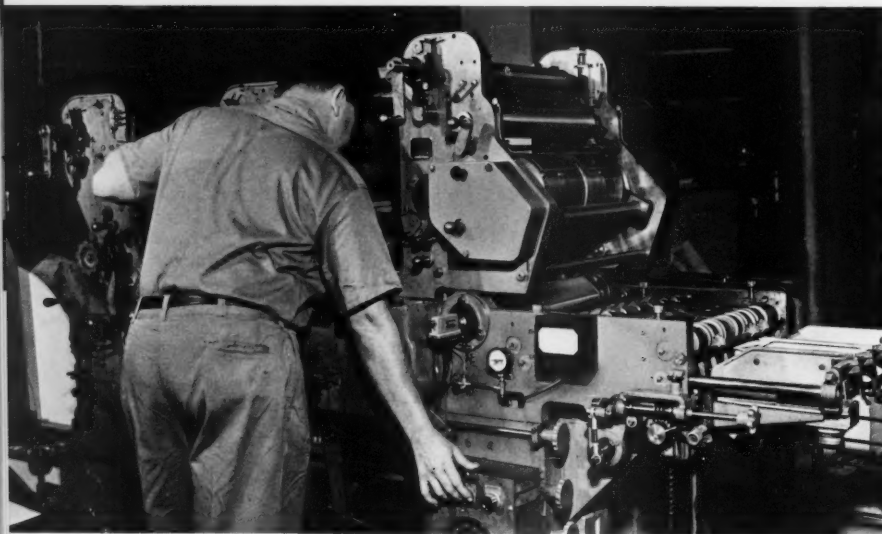
From Indianapolis, Indiana: "Specifically, we feel that your service man, Mr. Robertson, is quite a good public relations representative for ATF. He has made a number of service calls to our shop during the past several years and each time we have been impressed with his courtesy and efficiency. He generally calls us when he is in town to see whether or not we are having troubles. He has given us helpful information by phone when he can't come over immediately."

From Los Angeles, California: "Being new in the offset field and not at all sure of myself, I ran into difficulty on my first job because the feeder was out of adjustment. Your Mr. Coppock arrived and had the feeder fixed in a matter of minutes, and gave our pressman instructions on the operation of the press. We are now running the press full time and have no difficulty. So again I would like to thank you at ATF."

From St. Louis, Missouri: "Charlie Obermire did a nice job for us. He's a credit to any organization."

From Santa Barbara, California: "We are pleased to say that our press now works fine and that we were extremely impressed with the helpfulness and competence of your service representative, Ed Gallon."

With all the "gripes" which are part of a service organization's life, ATF finds it gratifying to find so many customers willing to take time out to express their feelings of satisfaction when the job is well done.



Green Hornet (continued)

The company's printing salesmen find it profitable to sell the products of this fast 11 x 17" Green Hornet. No attempt is made by them to sell it as a "specialty" press, but the salesmen are adept at suggesting ways their customers can capitalize on its speed and economy by tailoring jobs to its capabilities.

"The Green Hornet has lived up to our complete expectations," says Mr. Mancini. "We are pleased with the performance of all our ATF presses and equipment, but the top honors go to the 'Hornet' for producing quantity and quality at a profit!"



American Type Founders • 200 Elmora Avenue • Elizabeth, New Jersey

Branches

ATLANTA, GA. • 728 Spring St. N.W. Trinity 3-1663
BOSTON 10, MASS. • 273-285 Congress St. Liberty 2-8625
CHICAGO 6, ILL. • 519 W. Monroe St. Franklin 2-1188
CINCINNATI, OHIO • 20 E. 9th St. Cherry 1-2037
CLEVELAND 14, OHIO • 1530 E. 19th St. Main 1-1787
DALLAS 2, TEXAS • 604 S. Akard St. Riverside 2-8701
LOS ANGELES 15, CAL. • 1314 W. Ninth St. Dunkirk 5-2173
NEW YORK 14, N. Y. • 200 Varick St. Oregon 5-8910
PHILADELPHIA 7, PA. • 207-209 N. Broad St. Locust 7-0470

SAN FRANCISCO 2, CAL. • 360 Golden Gate Ave. Graystone 4-0262
ST. LOUIS 3, MO. • 1931 Washington Ave. Chestnut 1-2757

In the Rocky Mountain States:

A. E. Heinsohn Printing Machinery and Supplies

DENVER, COLO. • 1443 Blake St. Tabor 5-8251
ALBUQUERQUE, N. M. • 5231 Central Ave. W. Chapel 3-9581
PHOENIX, ARIZ. • 1828 W. Jefferson St. Alpine 2-3905
SALT LAKE CITY, UTAH • 246 W. First South St. Elgin 9-7641
EL PASO, TEXAS • 416 N. El Paso St. Keystone 3-1780



Is it hard to build a house?

Not too hard, when you're building a *bird* house.

And so you had set to work, carefully sawing the pieces, nailing them together and chiseling out the little doorway.

Three hours, two splinters and a bruised thumb later, it was finished.

But it needed a tenant. And soon one came. Circling. Inspecting. And suddenly—popped right

into its new home. *That* was the proud moment.

Can you recapture another like it? You often do. But today, your tools are presses, inks, papers—and your undiminished *pride*. You use them all to build your good printing, your good reputation.

And we help, because pride goes into our product, too. The paper you're looking at right now is a good example.

ATLANTIC FINE PAPERS

EASTERN FINE PAPER AND PULP DIVISION • STANDARD PACKAGING CORPORATION • BANGOR, ME.



Production facts: This insert lithographed on new, brilliant white Atlantic Opaque, Vellum finish, basis 80, on a 52 x 77 4-color press, 30 up at 4,000 IPH. Sheet size 49½ x 76½. Color sequence was yellow, red, blue, black. Press plates were deep etch aluminum from 175-line screen positives.



What a color line-up for creative printing!

French Cream. Mistie Blue. Ocean Green. Dustie Pink. Daffodil Yellow. Smokie Gray. *Only Atlantic Pastel Offset has them all. Use them to spark your creativity. Use them to provide an extra color *without extra presswork*.*

Atlantic Pastel Offset's well-closed surface takes inks beautifully. High bulk and even caliper mean trouble-free presswork. And this versatile paper folds and refolds without cracking.

Your choice of basis 50, 60 and 70 in velvety Suede finish. For a perfect match-mate, specify Atlantic Pastel Cover. Ask your Eastern Franchised Merchant for samples of both papers. Or write us direct.



EASTERN FINE PAPERS

EASTERN FINE PAPER AND PULP DIVISION • STANDARD PACKAGING CORPORATION • BANGOR, ME.

Production facts: This insert lithographed on new, brilliant white Atlantic Opaque, vellum finish, basis 80, on a 52 x 77 4-color press, 30 up at 4,000 IPH. Sheet size 49½ x 76¾. Color sequence was yellow, red, blue, black. Press plates were deep etch aluminum from 175-line screen positives.

KODALITH ORTHO TYPE 3 EMULSION

Take your choice of many widths (roll film sizes as wide as 52") and many bases: glass, acetate, Estar Base.

Get the same superb Type 3 emulsion quality on any and all—the same emulsion uniformity that makes Type 3 predictable; the same remarkable latitude in exposure and development,

plus the same high contrast, which has made Type 3 so popular.

Kodolith Ortho Plates, Type 3: for the discriminating whose ultimate desire to produce quality can only be realized by use of the ultimate in size-holding material, *glass*.

Kodolith Ortho Film, Type 3, Estar Thick Base: the next most stable material after glass, but with the easy handling characteristics of film.

Kodolith Ortho Film, Type 3, Estar Base: the general-purpose film that the trade has been buying, using, praising a lot this year.

Kodolith Ortho Matte Film, Type 3, Estar Base: for those who want matte finish on both sides of a stable film so that you may write or draw on it.

The support for all of the above films is Kodak's own Estar Base—tough, flat-lying, optically clear, fast-drying—the base which retains its high degree of stability through processing and in any weather.

Kodolith Ortho Film, Type 3, and Kodolith Ortho Film, Type 3, Thin Base: both with acetate supports, either .0055" thick or .0035" thick.

Kodolith Transparent Stripping Film, Type 3: offers the benefits of a fine emulsion for a very important job. It dry-strips nicely, works well for powderless and conventional etching.

Many of these films will fit into your plant routine quickly without a problem. A call to your Kodak dealer is the next step.

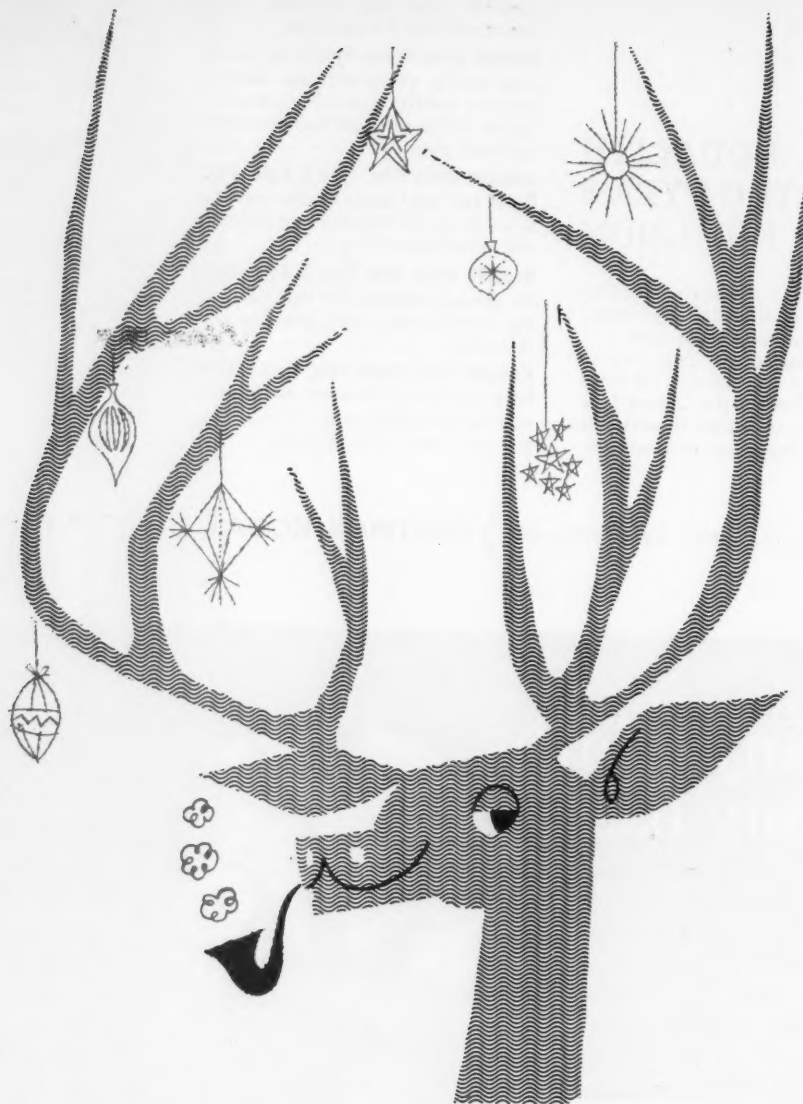
Text for this advertisement was set photographically.

Graphic Reproduction Sales Division

› EASTMAN KODAK COMPANY, Rochester 4, N. Y.

Many widths,
many bases

Kodak
TRADE MARK

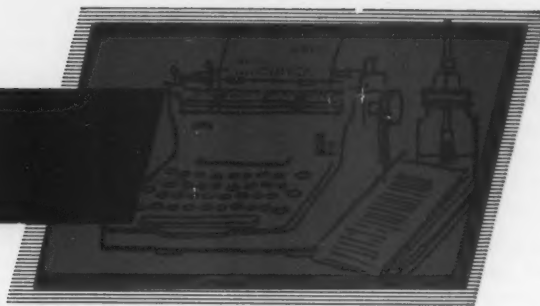


SEASON'S GREETINGS
and best wishes for a
PROFITABLE NEW YEAR

Rapid Roller Company

CHICAGO

EDITORIALS



A Time for Optimism

LITHOGRAPHERS always look forward to Christmas with double pleasure. In addition to the festive parties and celebrations that accompany the season, and the stunning assortment of lithographed cards that are exchanged, there is a chance to reflect on the accomplishments of the year just closing and to make plans for the new year.

This year, generally speaking, has been a very good one for our industry. Certainly we have heard reports of poor business, labor troubles, price-cutting, etc. from some areas, but these problems will always be with us in some measure and this year they seem to be somewhat less than normal. Overall, lithographers have reason to look back on 1960 as a year of at least modest prosperity.

Several factors contributed to this euphoria. Early in the year the first census reports confirmed what everyone had surmised . . . litho had made big gains in the past seven years, continuing its acceleration at a faster clip than letterpress and gravure.

Then there were reports from several sources that, while profits in our industry still are not anywhere near what our financial leaders consider "adequate," they nevertheless made a perceptible gain in the previous 12 months.

And there were other symptoms of prosperity manifest during the year. Perhaps most prominent was a marked upswing in trade association activities, with major conventions and regional meetings showing not only record attendances but increased enthusiasm on the part of members.

On the local level, there was a dramatic rise in the number of litho shows, work shops and seminars. Craftsmen are sharing their knowledge to a point where there are very few secrets left and the once cynical artisans who scoffed at giving away trade secrets now seem delighted with the open exchange of information. Such a change in attitude

could only result from a healthy condition in the profit and loss statement.

Another symptom of health in our industry is a renewed interest in research. The suppliers, always in the forefront, have been more active than ever in 1960, with a wide variety of new products—films, chemicals, plates and presses — making their appearance at trade shows and in trade magazine advertisements. And the LTF reported a good year too. Jack Kronenberg, who heads the Foundation's Public Relations committee, calls an investment in LTF's research program one of the best bargains of all time. More litho firms than ever seem to agree, as LTF membership neared the 1,000 mark at year's end.

A formal research program in the relatively new field of web-offset seems assured, following productive conversations between LTF and PIA's Web-Offset Section. Web-offset, by the way, has enjoyed the biggest boom of any area of lithography, and many exciting new developments are forecast for 1961.

All these signs, then, add up to a very healthy picture of lithography as we move on in the '60's. The holiday season is a fitting time to reflect on the bright side of our industry and to forget, for the moment, the petty day-to-day headaches that sometimes tend to obscure the really solid position of our expanding industry.★

Quote of the Month

' . . . too long has lithography been known as the 'gray medium.' With all the progress in lithographic papers, presses, rollers, blankets, plates and inks, etc., lithographed black and white leaves much to be desired . . . '—J. Tom Morgan, page 32.

BLACK and WHITE

... the forgotten litho product

By J. Tom Morgan, Jr.

President, Litho-Krome Co., Columbus, Ga.

TECHNOLOGICAL changes that can affect the quality of your product are taking place so fast in our industry today that it is difficult to comprehend them all . . . much less, put them into practice. What was mere theory yesterday, as a means of producing quality lithography, is in practical use today. What is modern today will be obsolete tomorrow, and will soon pass into oblivion. We're living and working in an era of change; an age of progress, the likes of which mankind has never before experienced.

It's great to be alive in this day and age, and to realize we are all a part of this great era of technological achievement! Although we are frequently confused and over-awed by the great spectacle, we nevertheless do have the privilege of seeing all this opportunity for improved quality occur right before our very eyes. We can benefit from the demonstrated results of research and experimentation. But, of equal importance, we must assume new responsibilities in the achievement of higher standards of quality. We can do this by exploiting the new techniques, improved materials and advanced equipment made possible by our industry's research and development programs.

However, not all of these changes are technical, and not all make for a better product. For instance, traditionally the graphic arts, and lithographers in particular have been com-

prised of small shops. Even today, that holds true. A plant with 100 or more employees is still a pretty good sized business, although there are a few individual plants employing into the thousands. There is a trend to the formation of larger groups. These are called "mergers." Printer merges with printer, label manufacturer with cellophane printer, lithographer with carton manufacturer and, perhaps the most startling of all, paper mill with printer.

Cynical Definition

All of this makes the small lithographer wonder what is going to become of him. Are the still larger plants going to produce more and more, faster and faster, and leave him standing by the wayside? Will the clamor for web-fed presses and larger multicolor sheet-fed presses make for an atmosphere in which quality of product will become secondary? Will the definition of "quality" become, as I heard it defined recently, "The manufacture of, to a consistent standard, the lowest quality product the public will accept?"

The larger shops have certain advantages over the traditionally small lithographer, who may be wondering if he can exist among the giants. The larger organizations have financial strength and production capacity; but, how will this affect the quality of their product? While the merger may create various conditions that are not conducive to achieving quality, it has on the other hand, a pooled resource of technical "know-how" so essential in this forward looking age.

We can only hope that this advantage will also be exploited.

So, what I have to say is aimed at helping both the small and the big plants. What I must discuss applies mostly to the small lithographer who struggles to keep his head above water in this race for product superiority. For it is in the smaller shop that quality has its best chance to survive, to prosper and to grow. It is in the atmosphere of the quality minded small lithographer that the standard for quality can be held high. It can be held so high that the larger shops will recognize the need for acquiring and maintaining it. For the American market is not going to settle for second best!

Where the larger plants can lead the field in mass production, the small shop can establish the standard in technical excellence. In fact, the small shop must set this standard if it is to be set at all. For quality is attained more by a philosophy of the skilled craftsman, than it is by the speed or size of the equipment which he uses.

Printers of all classifications, and lithographers in particular, must continuously strive for improved quality in color, and in black and white portrayal, too. Knowledgeable production men, and astute advertising directors are alert to the lithographer who can achieve superior results, not only in color, but also in black and white reproduction.

The Forgotten Product

Since black and white is the forgotten product of the lithog-

From an address on quality control panel at annual convention of the NAPL, Conrad Hilton, Chicago, Oct. 6.

rapher, let's talk first about black and white only. Too many plants are trying to get into color who could well stay in the black and white field and concentrate on improving that product. Don't you agree that too few plants today can boast especially about black and white?

In the realm of black and white rendition, too long has lithography been known as the "gray medium." With all the progress and improvement in lithographic papers, presses, rollers, blankets, plates and inks, etc., lithographed black and white leaves much to be desired as compared with other media of reproduction.

It is obvious to almost everyone that the best black and white litho cannot even approach really good letterpress, much less compare favorably with gravure. In color work, yes; but black and white, no! We seem to be stuck with this inherent inability of lithography to attain the snap and brilliance so desirable in black and white.

The soft effect we get, we sometimes claim is desirable, as indeed it sometimes is. But, we must admit if crispness and depth of detail are required, and our process won't give it to us, we are tempted to abandon the quality black and white field to letterpress and gravure.

In an effort to supply this demand for better blacks, with maximum retention of detail, with a wider tone range, and with a more consistent tonal gradation between high and low-key values, a great deal of experimentation and research has been expended in recent years. Many theories have been pursued, and a few methods are now utilized with varying degrees of success, to attain new heights in black and white reproduction by offset lithography.

Several publications have endeavored to help overcome these handicaps. The ideas promoted can be summed up, I think, in this statement: Use the full scale your halftone screen and ink film will allow. Make your whites, white paper and your blacks, solid ink. In this way, you will cover the entire available tone scale. If there is detail to be lost, lose

it in the shadows where it will least be missed. This approach is all well and good. If all photographers, platemakers and pressmen would follow this advice, the overall quality of halftone blacks by offset lithography would be considerably improved.

But, just suppose this advice were followed by all. There are still two flaws in it than cannot be ignored:

1. Why make an area solid black when the copy in that same area is a tone of grey? It is too often done, and the usual reason given is this: "We improved on the copy. Don't you think our reproduction has more contrast than the copy?" Of course, it has more contrast, and probably, just what the client didn't want.
2. Suppose there is a great deal of shadow detail in the copy; deep tones with important detail? Are we going to gray down the rest of the tones to maintain the shadows open? Or will we plug them up and say, "That's the best we can do."?

Both of the above situations happen to each of us every day. What can we do about it? The results of the methods used, up to now, seem to have been somewhat disappointing.

All is not lost, however; for there is a way you can do it. This discussion concerns one concept and a brief description of the technique involved in one approach to the problem at hand.

The high quality jobs we have produced are the result of a totally different concept of double impression technique. Both units of a two-color press are used. Our technique uses one pass through a two-color press. There are two black plates, each distinctly different. One halftone plate carries the low-key tonal values, and the other the high-key portion.

Precise tone control is applied to the Litho-Krome Black technique; the very same care as is utilized in our approach to the control of color. The most exacting scientific controls are always employed to assure maximum retention of detail and consistent tonal gradation between high and low-key values.

Black and white is a somewhat neglected product of the lithographer. I hope the foregoing will convince lithographers that it has possibilities of a larger market for you, a market that will welcome quality black and white—on a par with, or better than competitive reproduction methods.

Color Control

So much for black and white. Now, let's talk about color. If control in black and white is important, control in reproduction of color is many times more so, since there are four different colors. You might say control is four times as important in color. There are many procedures that take place before a litho color sheet is ready for delivery to a client. All of these procedures, each and everyone, require control. The single most helpful and important control in our plant is a color chart. The intelligent understanding and use of this chart provides a reliable check point of control for each job from start to finish.

Most of us seem to do better from, and prefer to use, flat color copy. Yet reproduction discussion, in this era of more and better color, cannot be completely useful without dealing with the technique of handling transparencies. We must continuously search for improved methods in this area, for transparencies provide the vast majority of our color copy today.

In order to make a reproduction of a color transparency, we are told we must shorten the tone scale. All proof points to the necessity of a 40 per cent mask. They tell us that almost no two transparencies have the same range, but they don't bother to tell us that no two transparencies have the same reproduction curve. There are transparencies whose range is greater than 3:00 and a 40 per cent mask would bring it to the reproducible range on paper. The answer is to fog this excess range and compress the shadows. They don't bother to tell us that this kills all shadow detail.

Then, there's the occasional transparency with such a short range that any degree of range masking would destroy what little character is available for reproduction. So, I say trans-

(Continued on Page 115)

Union and Management

CAN Solve their Problems

By Mendel Segal

President, Union Employers Section
Printing Industry of America

THE FAST changing picture of our industry, both as to process and machines, coupled with the obvious steady deterioration of the relationships between the printing trade unions, is creating doubts in employers' minds as to ability of unions to resolve specific problems without damaging our relations beyond repair. A satisfactory solution for the tensions existing in our industry today is going to require the most intelligent leadership and extreme tolerance. It behooves each union to recognize the importance of making certain that future actions and decisions are made on the basis of what is good for our industry, and not purely selfish interests.

I realize that this is difficult to do. But attitudes are more important than facts. It is difficult to keep the proper attitude unless we temper selfish interests. I believe that the conflicts among the various unions could easily be resolved if some union leaders were willing to make personal concessions in favor of what is best for our industry. Yet, I know no one wants to concede. This, then, makes our problem difficult to surmount.

As businessmen, union leaders have only one thing to sell — the craftsmanship and productivity of their members. I am certain that these leaders often fail to remember that we, union employers, are their customers. Members of the U.E.S. provide employment for the following approximate number of union members:

IPP & AU65,000
IB of B45,000
ITU35,000
ALA25,000

Our figures covering IPEU and IS & EU are difficult to substantiate, but we know that in each of these members would run somewhere between four and five thousand. There are several thousand of the United Paper Makers. I wonder how many more union employers would go broke if we treated our customers with as little consideration as the unions often give us. I recall one union leader's remark to employers in which he said to the effect, "I'll believe you are going broke when you're out of business." Well, some of the unrealistic contracts of yesteryear are taking their toll today.

Pendulum Has Swung Too Far

I worked in a printing plant some 30 years ago and, admittedly, the employers at that time needed some corrective measures. Today, however, the pendulum has swung too far the other way. Balance of power is not the solution, because we lose sight of the one thing that is bigger than either labor or management. Let us not forget that *our real bosses are our customers.*

They are the people who control our industry and who determine our future. While some of us feel we have successfully met the challenge of radio, television and other competitive means of communication, we cannot become complacent for one moment. We are currently faced with additional problems of overseas competition, as well as the tremendous continued growth of private installation of small

presses, binding and mailing equipment — both by former buyers of printing as well as governmental agencies.

Union leaders, should face up to the fact that the longevity and success of their unions and our plants can be preserved only by recognizing that final decisions must be made with economic factors in mind — not selfish accomplishments, politics or out-of-date principles.

They must remember that to produce a saleable product, most plants require the services of craftsmen from several unions. And, any conflict between these crafts affects the quality and quantity of our finished products. This has a direct effect on our printing buyers, because when work stoppages or jurisdictional disputes occur, customers justifiably seek other, more reliable sources of supply. So union difficulties can chase away the goose that lays the golden eggs — our customers.

It is difficult for me to understand the thinking that is prevalent in some of the jurisdictional rivalries between the unions which, for the most part, result in a "cold war" or a "war of nerves," and in some instances have actually resulted in interruption of normal operations.

For instance, what was accomplished when the ITU struck five of our member plants in Mobile, Ala., two years ago, when the employers refused to grant the ITU jurisdiction over the offset camera and plate-making operations in several of the plants; when the work was being done under contract with the IPP & AU? This strike was promptly enjoined by

From an address given at the Printing Industry of America convention in Washington, D. C., Oct. 26, 1960.

a federal court order and later the NLRB held that such action on the part of the ITU constituted an unfair labor practice. Some months later, 178 members of the ITU struck 11 of our lithographic plant members in Vancouver, B. C., in a similar demand for jurisdiction over camera and platemaking work which was being done by the ALA under contract. With the cooperation of other unions, the striking ITU members were replaced and for the past year operations have been normal, although members of the ITU are still on strike.

In another instance at Scranton, Pa. (Eureka Specialty Co.), the IB of B insisted upon arbitrating an employer's refusal to place a member of the IB of B in the pressroom to supervise the operation of a perforating attachment on a newly installed press. The arbitrator ruled that he could not pass on the questions without the participation of the IPP&AU and the latter refused to participate.

Useless Disputes

Other cases have consisted largely of agitation but without any overt act other than a few instances of refusal to work overtime in an effort to coerce the employer into making a decision in favor of the union involved. Among the types of disputes involved were the handling of typesetter tape not produced by members of the ITU; typing for reproduction done in the front office; markup of copy in the front office; operation of lineup tables in the pressroom; pulling reproduction proofs in the pressroom; operation of fixed focus cameras in connection with Brightype operations; paste makeup; use of pen ruling on reproduction proofs in the composing room vs. scribing of rules on negatives in the platemaking or art departments.

What is to be gained by trying to force a union plant not to accept teletype punched by customers, when an open shop will be happy to accept such work?

Surely, union leaders recognize the lack of wisdom in trying to create unrealistic, uneconomical and illegal contractual relations.

Negotiation of contract language to conform to the Landrum-Griffin amendments to the Taft-Hartley Act, particularly in connection with struck work, also has been the cause of much difficulty, particularly with the Amalgamated Lithographers and the ITU. The insistence of the ALA on contract language which the employers felt violated the amended law, precipitated a 10-week strike involving some 15 lithographic plants in San Francisco. This case currently is pending before the National Labor Relations Board. Can the lost wages and the damage of lost printing customers for union plants ever be recouped? Certainly not!

Other cases involving demands for union foremen and certain struck work clauses also are pending before the NLRB and the courts.

Wouldn't a realistic attitude toward the situation, and an understanding between union and management based on what is best for the customer, be a more sensible and lasting solution?

Employers In Middle

The welfare of our industry and the job security of all of us does not permit the luxury of uneconomical solutions to jurisdictional problems. The unions must find a way to take employers out of the middle. The so-called "cherished lines of jurisdiction" must be compromised. Unions should recognize that work processes must be resolved and performed within the limits dictated by what is most economically feasible — by whomever demonstrates the aptitude to learn quickly or perform right now. This means that certain processes should be performed in varying ways under varying union contracts — both as between cities, and even among different plants within a city. Admittedly, this is not as desirable as a single contract with a single union for all areas and for all processes which would be utopia, and I doubt, could ever be achieved (unless all crafts are merged). And, since there seems to be little chance of the problem being resolved between unions, the logical answer should be based on pure economics. I am convinced that unless a peaceful and economic

solution is found soon, we are all going to be seriously affected.

Resolving this problem is the great challenge to union labor, and it must be resolved before non-union plants get such a head start that we can never catch up.

Printing methods and processes are going through a stage of evolution that is both rapid and far-reaching. Ways and means must be found to make it possible for the employers of traditional trade unions to introduce and experiment with innovations without a jurisdictional war within a plant. These problems in union plants are giving competitive advantages to open plants which will have lasting effects. Many union employers are by-passing opportunities for progress because they fear the consequences of this unresolved problem.

I repeat that I cannot understand the shortsightedness of putting an employer in the middle in an untenable position which can only result in lack of confidence in us by our customers.

As a case in point, a publisher for whom we print several publications was dissatisfied with another printer who also handled several of his publications. We attempted to sell him on letting us do these additional publications. His answer was that he had already been through one strike and under no circumstances would he put all of his work in one union plant. He uses the facilities of out of city non-union plants as a safety factor. Now isn't that a fine state of affairs when a buyer is afraid to put his full confidence in us, even though we are serving him to his complete satisfaction, because he is afraid of doing business with a union plant? Is it any wonder, then, that as union employers, we have more respect for a union that is willing to sign an arbitration agreement to prove that they are willing to keep work stoppage to a bare minimum, without in any way sacrificing legitimate trade union objectives?

When an employer is put in a position of having to choose between "sudden death" versus a cancerous future, either position is untenable.

The graphic arts unions should give serious consideration to the dire need

for revising their laws and regulations to assist management in making necessary adjustments as changes take place in our industry. The rigidity of union laws is retarding progress and creating financial despair to many printers. The many mergers in our industry are positive proof that many of our printing companies are either insolvent or on the verge of it. The ugly head of poor economic contract provisions is rearing up and taking its toll. It is theoretical to assume that what is good for Detroit is good for Chicago. The problems of each area must be weighed in relation to the problems of staying alive and healthy. There are many areas which need flexibility. For instance:

1. *There should be flexibility in seniority. Union members must be educated to realize that their security is not achieved by hiding behind a union card, but in the amount of productivity they can achieve. They should realize that their output must be in proportion to the high wage level of our industry. An older man can maintain a level or out-produce a younger man by working smarter.*

2. *Apprentice rations must be adjusted to the needs of the industry and individual plants. Admittedly, some employers shirk their responsibility in training their quota of apprentices. But, why handicap the companies who need journeymen and are willing to spend the money to train them for the union? Unions should give some thought to permitting these employers on an area basis a "permit" to train more when others train not at all.*

3. *Union members should be educated to the need for sacrificing some of their own time to improve their ability and learn new processes and operations. They should be taught that proper training and real ability is their only real security.*

4. *There must be a limit to selfish interests. Tolerance and fair play must prevail — not die-hard tradition and rigidly biased interpretation of six-point type in contracts. We must move with the times or they'll move past us.*

New presses and new processes require additional training and adjust-

ment. There is need for study as to fair wages for new equipment, and fair and equitable manning. The amount of skill needed for some of the new operations is more in some instances but less in many others. Electronic controls will make work easier and produce higher quality products. An easier operation should never be overmanned. Variable rates should be established in proportion to the knowledge and ability required

Non-Union Competition

Economics is an important consideration. Whatever is necessary to be done to help us compete with non-union competition must be done. Automation reduces the spread which unions have professed to overcome with better trained journeymen. An industry which has a profit of 2.93 per cent after taxes does not have the financial strength to overcome inequities which are unrealistic.

The high cost of printing equipment today is presenting a serious handicap to many printers in trying to stay competitive. What union would be willing to obligate itself for \$250,000 to \$500,000 for a press on the mere possibility that a small profit might result? That \$250,000 to \$500,000 is the cost of one fair size four-color sheet or web press. A small litho plate operation from camera on through costs \$100,000.

Those plants whose leaders have the "guts" to undertake such tremendous financial gambles warrant the help of unions in trying to improve the profit stability — not attempts to squeeze blood out of a turnip when it isn't there.

The late IPPAU president Thomas E. Dunwoody stated in the March 1959 issue of *The American Pressman* that displacement of men by machine is a myth. I quote:

"For every compositor who once set type by hand," he pointed out, "there are thousands today operating hot metal type casting machines, setting more type, working shorter hours and being paid more money. For every bookbinder who once gathered signatures by hand, there are thousands today who are fill-

ing the jobs created by the demand for books by the millions. For every pressman, that industry no longer needs to hand feed its printing presses, there are now thousands upon thousands of printing pressmen, setting and operating mechanical paper feeding devices and the automatic presses to which they are attached. They, and others like them who have embraced and mastered new things are 'out in front,' so to speak, while the ones who refused to accept technological advancement, declined to acquire new skills, deemed it unnecessary to learn new machines or methods are left behind with a lower pay scale, less consideration when promotions are considered and are the first to be let out in search of new employment."

We need not fear the future if we work together for the good of our industry. To cope with these problems, however, I firmly believe that there must be a reawakening of our thinking, and the elimination of completely out-moded and unworkable historic policies.

I know it is difficult for anyone to consider any ideas which involve changes in thinking that have been lived with for many years. Resistance to change is a disease shared by both management and unions. Yet, progress requires change, and our thinking must be altered and revitalized from time to time.

'Guardhouse Lawyers'

Just as a chain is no stronger than its weakest link, so is the strength of the international unions limited to the strength of their local activities. There is need for education of local committees on the need for more labor-management harmony. Inexperienced, radical and selfish leadership creates undue hardships to management. We recognize that the new shop chairman may think he makes a name for himself by shouting the loudest or arguing on every member's interpretation of each clause. You and I know a contract is much more than that. Unions should keep the guard-

(Continued on Page 113)



Nancy Ann Geary stands by her father's prize poster, a reproduction of the first commercial poster to be lithographed, Toulouse Lautrec's "Moulin Rouge."



Edgar Walker, E. H. Walker Supply Co. (left), and Russell Webster, Baker-Webster Printing Co., seated in front of Gauguin's "Women of Tahiti."

COLLECTING LITHOGRAPHS

... a fascinating hobby

MIKE GEARY, who regularly covers the Washington, D. C. area for ML, is by hobby an art collector. However, his hobby is slightly different from that of other collectors since he gathers only stone lithographs (and photo-offset reproductions) of posters and paintings. Mike lives in a studio apartment in suburban Chevy Chase, Md., where personalities in the trade often assemble to talk shop, usually with a back-drop of Lautrec, Degas, Gauguin, Picasso and other famous painters of the past and present. Recently he photographed a few of his visitors in this gallery atmosphere, as shown in the accompanying photos.

Mike tells us that he owns too many reproductions for the amount of wall space in his apartment, but with the art mounted as posters, he finds it a simple matter to make a complete change of scenery in short order. In his extensive collection are more than 100 prints, ranging in size from 4 x 5" to 30 x 40", several dating before 1860. ★

Lynn R. Wickland, (top), chief, graphic arts and distribution division, Army Map Service, with "Divan Japonais," by Lautrec. James Turner, John I. Thompson & Co., (bottom) next to "Absinthe Drinkers," by Degas.



Edward Casson, Sr. (left), president of Capital Regraining Corp. and his son, Edward Casson, Jr., examine reproduction of "The Matador," from Picasso's Classical Period.



Lithographic Technical Foundation takes a

New Look at ZINC

By *Dr. Paul J. Hartsuch*

Technical Assistant
Lithographic Technical Foundation

THE LTF research department has been engaged for 36 years in the improvement of the lithographic printing process. In this respect, it is unique in the field of the graphic arts.

At the NAPL convention in Boston in 1958, a meeting was held, attended by representatives of LTF, the American Zinc Institute, and the three zinc rolling mills, American Zinc Products, Illinois Zinc Company and the Matthiessen and Hegeler Zinc Company. They discussed a cooperative sponsored program of research directed toward the improvement of the lithographic properties of zinc. An agreement was reached for LTF to carry out this program and it was started in March, 1959.

In the interval of about a year and a half since this program was started, a number of fields have been studied and I want to tell you something about the results which have been achieved. The work has included:

- The production of a very fine grain on zinc.
- Development of new surface treatments for zinc.
- Test of a new zinc alloy for reduction of stretch of zinc plates during the press run.
- Development of a zinc wipe-on plate.

After considerable experimentation, we were able to develop a tub graining schedule that produce a grain on zinc which is as fine as brush graining on aluminum. In general,

From an address delivered at the 28th annual convention of the NAPL, Conrad Hilton, Chicago, Oct. 7, 1960.

this method makes use of $\frac{1}{4}$ " steel marbles, fairly slow tub speeds and very fine quartz and pumice as abrasives. The exact method is described in the recent LTF "Research Progress" No. 49.

Several grainers have used this schedule and have been able to reproduce a fine grain in commercial graining tubs. This was a lucky early result of our program since it is an ideal grain for a zinc wipe-on plate which I will discuss later.

Zinc Is Ink-Receptive

It is well known that zinc as a metal is quite ink-receptive but is somewhat more difficult to desensitize in the non-printing areas. Aluminum, on the other hand, tends to be the reverse. It is desensitized easily, but does not hold an image area as well as zinc.

One of the LTF projects was to test various surface treatments for zinc to see how the ink-water balance could be altered. A number of chemical treatments were studied, as well as a chemical treatment followed by a so-called "sealing" treatment. We also examined several electro-chemical treatments to produce what might be termed an anodized zinc surface, similar to anodized aluminum.

We found that we could make wide changes in the surface properties of zinc. It was possible, with certain treatments, to make zinc even more water-receptive than aluminum. Of course, one cannot go too far in one direction in lithography. With this extremely water-receptive zinc surface, there was a tendency for surface plates to go blind.

What I want to point out is that a zinc surface can be altered to produce almost any property which you want it to have. What we must still do is to find which one of these surface treatments meets the ideal middle ground for a metal surface for lithography.

One property possessed by zinc is a tendency for a slight elongation or stretch of the plates on a long run. This can be an advantage or a disadvantage. If a job goes out of register, it is a disadvantage. But if it is necessary to stretch a plate a little to bring a job into register, then it is an advantage.

One of the jobs tackled by LTF was the evaluation of a new zinc alloy which contains a small percentage of titanium and copper. Tests at the zinc rolling mills had indicated that this alloy had much less tendency to stretch or creep than regular zinc.

Lithographic plates rolled from this alloy were supplied to LTF and were running for 40,000 impressions with over-packing between plate and blanket on the press. The distance between register marks on the plate was measured accurately before the plates were run, using the LTF Register Rule. Then they were remeasured after the 40,000 impressions. Regular zinc plates and aluminum plates were treated in the same way as controls. The results showed that the zinc alloy plates stretched very little, in fact, no more than the aluminum plates.

Several of these alloy plates are now being field tested in the Chicago area. One 77" plate ran for 268,000 impressions on a two-color press. The other plate was a copperized aluminum plate. Register was maintained

through the run and the Register Rule results showed that neither plate had changed size, at least no more than .002".

No Measurable Stretch

A 69" zinc alloy plate was run on a four-color press along with three aluminum plates. The run this time was 78,000. Neither the zinc alloy plate nor one of the aluminum plates showed any stretch during the run. Another 69" zinc alloy plate completed a run of 105,000 with no measurable stretch. It is apparent that the results of these field tests are correlating very well with our laboratory tests at LTF.

There is no problem in the preparation of a zinc deep-etch plate on this zinc alloy surface. There is even some proof that the non-image areas are a little better desensitized than regular zinc.

So we can say that, as a result of this cooperative research program, another metal has been added to the group of metals available to the lithographer.

Diazo type wipe-on coatings on aluminum plates have proved quite successful, and have been in use for several years. At LTF we set out to develop a process for making satisfactory zinc wipe-on plates. A number of problems were encountered but they were solved one by one, and we feel that we now have a very good process for making these plates.

It was soon discovered that the grain on a zinc plate must be very fine in order to make a wipe-on image without encountering background scum. Luckily, the very fine grain which LTF has developed for zinc plates proved to be ideal for use with wipe-on coatings.

Then several surface treatments for zinc were tested, to find which one would give a surface on which the coating would be stable. We have settled, at least for the time being, on a treatment which is satisfactory and which can be applied to the plates while they are being grained.

A number of coating solutions were tested on zinc plates. All of them were satisfactory, at least with our new developing technique which I will

discuss next. We also developed several coating solutions in the LTF laboratory which have proved to be quite successful. Work is still under way on coating solutions and there is a good chance that we can develop one which is especially well suited for zinc.

At the start of this project, we tried to make zinc wipe-on plates by a conventional process. That is, we exposed the coating through a negative, applied a developing ink, and then developed the plates with an acidified water solution. Plates can be made in this way, but the process is somewhat critical. The coating must not be rubbed down too thin, and the proper developing ink and developer solution must be used.

In particular, the developing ink was troublesome. At least 15 developing inks were tested, including ten proprietary developing inks and several special developing inks formulated in the LTF laboratory. When the ink was heavy enough to produce a nice, black image, then the plates were difficult or impossible to develop out in the non-printing areas. And if the ink allowed easy development in the non-printing areas, then it produced gray image areas, and these areas did not look real "healthy."

Ink-Water Emulsion

So the LTF laboratory set to work to produce an ink and water emulsion to see if such an emulsion would solve those problems. After several attempts, such an emulsion was developed, and it seems to have solved most of the troubles with this plate. The emulsion removes the coating from the non-printing areas, sensitizes these areas, and inks up the image areas at the same time. The image areas are very black and the ink is non-drying. After the plate is rubbed up with the emulsion ink, it is treated with water. The plate clears very easily and leaves halftones which are sharp and clean. Also with this ink and water emulsion, the thickness of the coating on the plate is not nearly as critical.

Following this treatment, the plate is gummed, or etched and gummed as usual.

The zinc wipe-on plate is still so new that we don't know the limit of plate life. One plate ran for 71,000 impressions before the image began to weaken. Two plates ran the complete edition of 40,000. Two other plates ran 35,000 and were stored for a future re-run. We believe that the light-hardened coating is bonded very tightly to the zinc and therefore the image areas should hold very well. For the longest plate life it is possible to lacquer the image areas during platemaking, by a couple of additional steps.

We feel sure that zinc wipe-on plates will find a definite field in lithography. They can be made easily and rapidly. And as I just said, the image areas appear to be tightly bonded to the metal. It is easy to add work to zinc plates and get it to hold. And the plates can be regrained and used over many times. This last property will enter into the economics of the platemaking picture and may be a deciding factor in shops where many short run plates are used.

In conclusion, we have learned a lot about the graining of zinc plates and have been able to produce tub grained zinc plates on which the grain is as fine as that of brush-grained aluminum plates. This grain has proved to be ideal for the preparation of wipe-on plates on zinc.

Considerable work has been done on the development of a new surface treatment for zinc, and it seems to be possible to alter the surface of zinc to give it any desired water-or-ink receptivity.

A new zinc alloy has been field tested and found to be highly resistant to stretching during a press run. And this was accomplished without reducing any of the desirable properties of zinc.

And finally we have developed a wipe-on platemaking process for zinc which looks very promising for lithography.

It has been interesting to me to be associated with this program and to see how the application of research techniques can lead to the improvement of the lithographic properties of an old well-established lithographic metal like zinc. ★

What Instruments Are Needed for QC?

By Louis D. Pollner
Supervisor, Quality Control,
Consolidated Lithographing Corporation

TWO important aspects of any lithographic quality control program are raw materials and the devices and instruments for checking on raw material, as well as on work in progress. My coverage of both of these subjects, however, is not intended as a complete survey of this very wide field. To begin with, I can only draw from our own experience at Consolidated. Some of this will apply to your own plants and some will not. And, secondly I will try to avoid material that has already been widely presented to the industry.

As far as raw materials are concerned, we feel that paper ranks as most important. It is largest in bulk, largest in expense, slowest to be replaced, and therefore, most costly if it does not perform properly. Therefore, we at Consolidated have formulated a paper testing program.

All shipments are tested on receipt for a number of factors. Most tests are made to show how the stock will perform in our operations. These tests include moisture content, shape, ink receptivity, pick strength, acidity or alkalinity, color, squareness of trim and general appearance. Detailed descriptions of these and other useful paper tests can be found in the LTF Bulletin No. 8, "What the Lithographer Should Know about Paper."

Additional tests are also performed for factors which affect operation in a customer's plant; such as, the water absorption of the base of label paper or adhesion of gummed stocks. These tests are divided between the laboratory and factory personnel, depending on who can more conveniently perform them. At the successful conclusion of the tests, the proper form is stamped to the effect that the paper is okay for use. Without this stamp, no paper is allowed to go to the press room.

I want to stress what appears to us to be the most important factor in the running of paper. This is the combination of the moisture content and flatness of stock. Its moisture content must be properly related to the humidity and temperature of

the press room in order to print free of distortion. Likewise, its shape must be flat, or reasonably close to flat, in order to run free of distortion.

Now, what do you do if the moisture is not correct, or if the stock is not flat, or if any other required condition has not been met? Quite frankly, that depends on the particular situation. At times, as when a job calls for a special type or size of paper and there is no time for re-ordering, there is no alternative but to print. However, when running a stock size, when there is more paper in inventory, some action can be taken. In our own case, we segregate the suspect skids, or even entire shipments, and substitute paper from another shipment, or if necessary from another mill.

Information Helps Supplier

There is an additional benefit accruing from our paper test program. By testing beforehand we get concrete information that can be supplied to a mill in case there is trouble. We tell our suppliers what we require, and we tell our customers the same when they furnish stock. We inform them immediately if a shipment is found to be below standard. In this way, the mill, or the customer, when he furnishes the stock, knows in advance that we expect trouble. It is then up to them to assume responsibility for our running the stock, or to substitute better paper.

And even if the initial tests show no defects, but trouble is encountered on the press, our system enables us to furnish the important details that the mill requires in tracking down the trouble. This system of information (part of our program) is one which has paid dividends in controlling our stock and developing better relations with our suppliers. It is a system of which we are proud.

We are also fortunate in that we have equipment for treating paper before going to press. Controlled moisturization has been added to our seasoner so that if paper arrives either dry, wet or wavy, it can be brought up to standard before going to press.

Ink ranks next in importance in our list of supplies. Here, the most

From an NAPL address delivered as part of a panel on quality control.

important single factor is color, which can be checked with a visual judgment of the old-fashioned draw-down, or more objectively from a modern proof press print taken under controlled conditions of pressure, absorbency of stock, quantity of ink, etc.

The latter, of course, can be measured by meter. The simplest meter measurement would be by a densitometer with a single filter. This can be made more exact by using three filters for triple coordinate readings, or up to 11 or more for abridged spectrophotometry. Of course, a complete spectrophotometric curve, the superlative in color measurement, can also be taken.

Also to be tested are tack, on the LTF Inkometer; fading, by a suitable instrument (such as the Atlas fadeometer), and fineness of grind. My own comments on these are that every plant should know that these quality controlling tests exist, and that each plant should select and put into operation the ones that cover the factors which in their experience have been troublesomely non-uniform.

* * *

Work in Progress

So much for quality control of raw materials. I now want to approach the subject of controlling work in progress. I will mention a number of small items, mostly tools and gauges, which we at Consolidated have found useful in controlling work in progress.

Let's start with the camera department. The most popular instruments here are the densitometers and light integrators. They have been advocated for many years and are now made by many manufacturers.

Recently, however, we came across a new instrument called a Dark Field Illuminator. It is a simple box of moderate size. On the top is a ground glass which area gives normal illumination, as found on a stripping table. The clear area gives a dark illumination which enables the fringe around the halftone dots to be seen quite readily. I imagine we all have seen people hold up a film, put a finger behind it, and jiggle the finger to pick up dot

fringe. This piece of equipment gets away from the finger business. It standardizes conditions so that any one in the shop will readily see soft dots.

What is the practical importance of this? You might say that in your own shop things do not vary very much, particularly if you have a standard method of making halftones, but what happens when you buy positives on the outside? Isn't it an advantage to be able to check them and to know what you are going to make your check with? This is an assist in that direction.

* * *

Next in line after the camera room is the plate room. Perhaps the niftiest control item for use here is the LTF Sensitivity Guide. I say nifty because it accomplishes a great deal with little effort. So much has been written about it that it is hardly necessary for me to describe it. I simply mention in passing that I think it is important, and that I note that all instructions for platemaking, such as those issued by manufacturers of platemaking supplies, include reference to it. And most rewarding of all, I have seen seasoned platemakers, men of experience, adopt the guide and use it. That's proof enough.

* * *

What is new in the plateroom? Well, there is an item that came to our attention about a year or two ago, which I think is worthy of note. It is an illuminating magnifier with 50-x magnification. The illumination can be powered by batteries or from a regular electric outlet. The instrument is ideal for a number of uses in the plate room. We started using it to check for reticulation, which is the fine cracking that sometimes develops in a deep-etch coating that has been applied to a smooth multi-metal plate. This reticulation was not discernible with the ordinary means at hand, but a check with the 50-x magnifier disclosed the condition before the plate was etched and irreparable harm was done.

The magnifier is also handy for judging plate grain, for judging

quality and firmness of a deep-etch stencil and for similar examinations.

* * *

Tools for Pressroom

Now for the pressroom. This is which we have located, and in some cases developed, several quality control tools. The vast majority of our jobs involve critical register on a number of operations—consisting of color printing, gold bronzing, embossing, and a combination of straight and die-cutting. Register control is critical at every step of the way.

To this end, improvements were developed for judging register at every step. A good example is our check for side-guide pull-over. The usual way to accomplish this—and I am quite sure it is usual—is to scratch a small pull-over mark on plate, close to the edge of the sheet, and extending beyond it. But such a mark hardly holds as well as a mark that is shot into the plate originally, and the inevitable change in its printing characteristics confuse the judgment of register. So we devised our own mark which is shot in on one of the plates of the first print on each job.

The mark is similar to a ruler graduated to hundredths of an inch. It is shot in at an angle to the edge of the sheet so that the individual graduations are five-thousandths of an inch apart in the direction of the side guide motion. It is positioned on the plate so that part of the mark prints and part falls outside the sheet.

It is judged in the same way the usual scratch-in marks are judged; that is by noting whether more or less of the mark prints. But this mark has the advantage of showing the extent of side guide variation down to five-thousandths of an inch. Rather than state that our pull-over is "good," or "bad," or "out a hair," we can describe the inaccuracies in concrete terms. Again, this is part of our policy of getting factual information on our operations. We feel every close-register job must be handled in this way.

* * *

(Continued on Page 113)

Web-Offset Terms

ANGLE BAR—Metal bar laid horizontally at a 45° angle from the direction of the press. Used to turn the web when feeding from the side, or to bypass the former in ribbon folding. Usually filled with air and perforated to reduce friction from web travel.

ANGLE BAR FOLD—See Ribbon Fold.

AUXILIARY ROLL STAND—A second roll stand that can be mounted on top of another roll stand. Reduces down time by permitting one stand to be reloaded while the other is still unwinding. *Can not* be used to feed two webs at the same time unless converted to a Dual Roll Stand. (which see)

BLANKET-TO-BLANKET PRESS—Refers to a perfecting press in which the web runs between two blanket cylinders, each of which acts as the impression cylinder for the other. Also referred to as a Unit Perfecting Press.

CHILL ROLLS—See Cooling Rollers.

CHOPPER—Mechanism which accomplishes the Chopper Fold. Signature is conveyed from the first parallel fold in a horizontal plane, spine forward, until it passes under a reciprocating blade which forces it down between folding rollers to complete the fold.

CHOPPER FOLD—Also called a Cross Fold or Right Angle Fold. The fold can only be made following the First Parallel Fold and at right angles to it. Produces signatures that are 16-page multiples of the

number of webs in the press, $\frac{1}{4}$ web width x $\frac{1}{2}$ cut-off length.

CHUCKS—Mechanisms inserted at ends of core to support paper roll on roll stand.

COCKING ROLLER—See Guide Roller.

COMPENSATORS—Adjustable rollers used in folder feed mechanism to control tension of web and keep it smooth.

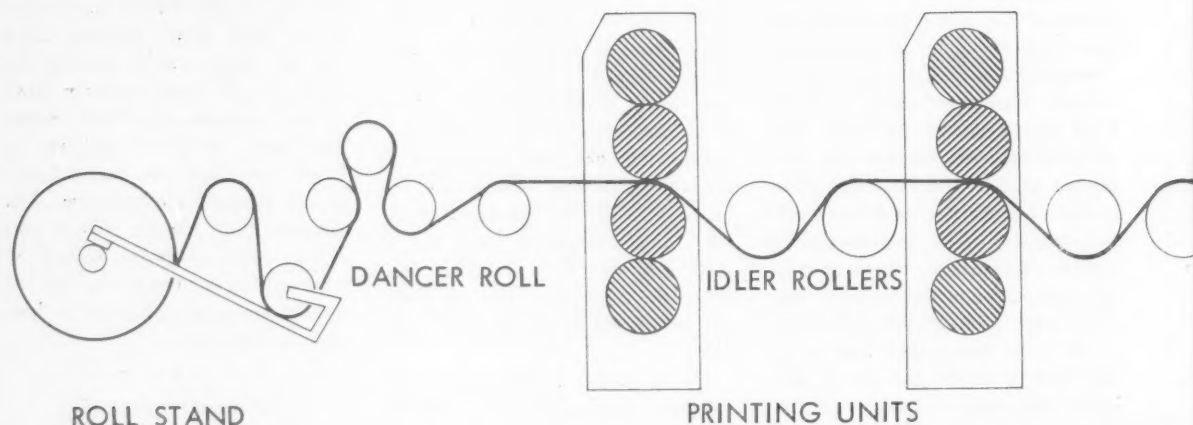
COOLING ROLLERS—Also called Chill Rolls. Located immediately behind the drying oven and used to reduce the temperature of the web from the approximately 350° of the oven to the drying temperature of the heat-set inks, about 80° to 90°.

CORE—Shaft in center of roll, around which the web of paper is wound. May be either metal or paper, returnable or not.

CROSS FOLD—See Chopper Fold.

CROSS PERFORATION — Perforation made at right angles to direction of web travel to prevent bursting of signature during Second Parallel Fold.

DANCER ROLL—Sometimes called a Rider Roller. A weighted roller which rides on the web between the paper roll and the metering unit to take up slack and to keep the web at a uniform tension. It is interlocked with a braking mechanism on the roll to control unwinding.



DOUBLE IMPRINT UNIT—Two sets of printing cylinders to permit imprint to be changed while press is running at full speed.

DRYER—Also called Drying Oven. An oven through which the web passes after it leaves the last printing unit. Used with heat-set inks. Heats web to about 350° using either gas, electricity or steam to dry the vehicle. Air blasts are used to drive off volatile inks. Results in higher drying temperature for ink.

DRYING OVEN—See Dryer.

DUAL ROLL STAND—Roll stand supporting two rolls, one above the other, in order to feed two webs at the same time or to reduce reloading down time if only a single web is being used.

FAN DELIVERY—Water-wheel type rotary units used to transfer folded signatures from various folding sections to conveyors that carry them to the press delivery.

FIRST PARALLEL FOLD—Also called Tabloid Fold when the web has been slit in half longitudinally. Made in the jaw folder immediately following the former fold (see Jaw Folder). Results in 8-page multiples of the number of webs in the press, signature size $\frac{1}{2}$ cut-off length \times $\frac{1}{2}$ web width.

FLYING PASTER—Automatic pasting device that splices a new web of paper onto an about-to-be depleted roll, without stopping the press.

FORMER—A triangular device on a folder, slanted at approximately 55° from the horizontal, point downward, over which the web travels to be folded in half longitudinally prior to entering the jaw folder. A roller at the top keeps the web smooth, a rounded nose at the point cushions the web, and tiny air jets at the edges and nose reduce web friction. May be equipped with pasting mechanisms.

FORMER FOLD—The fold made by the Former Folder

This material is reprinted, with permission, from the new booklet "Miehle Web-Offset Perfecting Presses," published by the Miehle Co., Division of Miehle-Goss-Dexter, 2011 Hastings St., Chicago 8, Ill. Complete copy of the booklet may be obtained from Miehle.

as the web passes over the former. Sometimes called a Newspaper Fold.

FORMER FOLDER—A folder which uses a former to fold the web in half—in the direction of travel—before it enters the jaw folder. Can refer to the complete folding unit, or only to this first fold.

GUIDE ROLLER—Sometimes called a Cocking Roller. Located on roll stand between roll of paper and dancer roll. Can be cocked to compensate for slight paper variation.

HEAT-SET INKS—Special inks for high speed printing which dry rapidly when they are heated and quickly chilled.

IDLER ROLLERS—Any free turning grated roller used to support and guide the web as it travels through the press. Often used in the trade interchangeably with Web Lead Rollers.

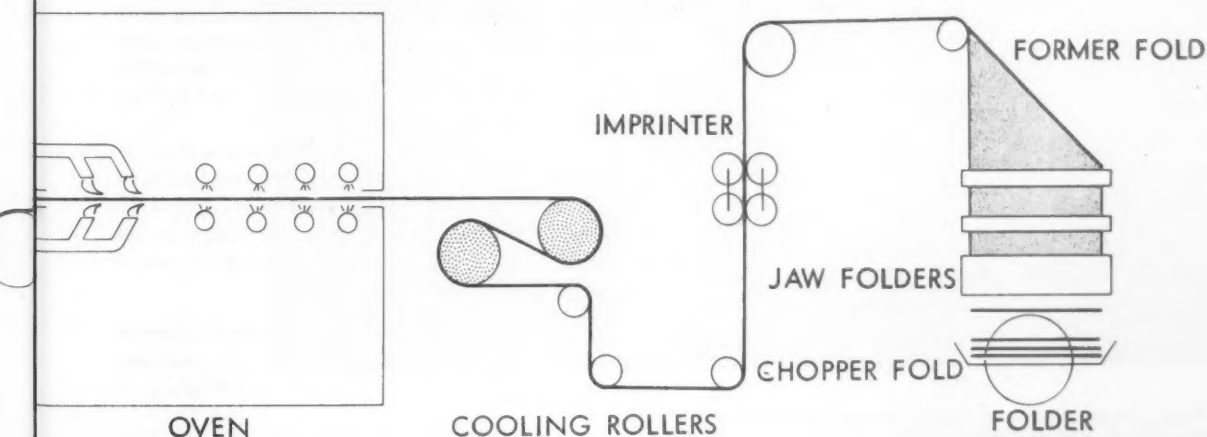
IMPRINT UNIT—Used to print imprints on one side of the web. Uses rubber plates.

IN-FEED ROLLERS—See Metering Unit.

JAW FOLD—Fold made by jaw folder. Also called a Tucker Fold or Parallel Fold.

JAW FOLDER—Consists of three cylinders between which the web passes to make one or two parallel folds at right angles to the direction of web travel. The lead edge of the web is caught on pins which carry it around the first cylinder. Half way around, tucker blades on this cylinder force the center of the

(Continued on Page 109)



five ways to make a **PROFIT**

By *Herbert W. Sayers*
Sayers Printing Co.
St. Louis

FIFTEEN years ago a large corporation with headquarters in St. Louis, in cataloging their local printing sources, made this confidential report:

"SAYERS PRINTING COMPANY, 14 North 9th St., St. Louis. A shop turning out printing of good quality . . . known to take on more work than they can conveniently handle. Also known as a one man organization with shop production dependent largely upon the interest its owner shows in getting the work out. Gardner Advertising Company uses them extensively with good results. They are fine for small and medium size jobs."

Fifteen years later our relative position is much the same. We're still on the team doing this firm's small and medium-sized jobs. But this corporation has expanded and so have we. In 1945 we had a half dozen accounts who had us cataloged in much the same way. In the ensuing 15 years we've not deviated much from the original "moniker" the report bestowed upon us. We still turn out printing of good quality. Our one-man organization has grown into a closely knit management team which is still vitally interested in getting the work in and out. Gardner Advertising Company still uses us with good results. We're still "fine" for small and medium-sized jobs.

But everything is a matter of relativity. Fifteen years ago those small and medium-sized jobs were two and three-figure orders. Today, and *not* necessarily because of inflation, these small and medium-sized jobs have taken on a four and five-figure appearance.

Why? Because the firms with whom we have been associated have, almost without exception, grown and prospered—and in several instances have become world leaders in their respective fields.

Our \$100,000 a year business of 15 years ago is now well over the million dollar mark. This is still small business in an era of elephant tonnages, buy-out acquisitions and conglomerate mergers. It has been unspectacular growth, both sales and profit-wise, but it has been with the surety of compounded interest.

From a talk presented at the Printing Industry of America convention, Oct. 25, 1960, in Washington, D. C.

Our local St. Louis market is a competitive market. But it is a *good* competitive market. By and large, St. Louis buyers are hard men to sell. I don't mean to imply they are tough buyers . . . I mean they do not carry their purchasing practices on their sleeves. When they are satisfied with product, service and price, we find that they remain loyal. They are not shoppers for price . . . alone. In St. Louis we have the opportunity to build *accounts* and the acquisition of *accounts* is the only sure way to build a mutually profitable relationship.

The printing industry is a tailor-made industry. In years past, just because you had your shingle out as a printer it was expected you would handle everything from business cards and bill heads to complete and colorful catalogs. Today, the printing industry has followed the normal pattern of specialization and those who still try to be "jacks of all trades" in the field find they are masters of none. They are the ones who have been unable to maintain profitable operations in the face of specialized and not necessarily cut-throat competition.

I would like to illustrate, with our own case history from a sales management approach, the methods we have used to remain in the P.I.A. ratio manual's top 25 per cent profit category for the last several years.

1. We Specialize

Fifteen years ago we were producing "jack of all trades" printing. Since then gradually we have become specialists. Although it is still a pretty broad field, we feel we have been successful in gaining a reputation in St. Louis as specialists in multi-color advertising literature and packaging material printing. Believe me, the transition has not been easy nor is it yet completed.

We like to feel that even though we are pigmies compared to a great plant like R. R. Donnelley & Sons, the sky can be our limit for volume as far as a law of diminishing returns is concerned. We note from their latest annual report a 7 per cent net return after federal taxes on sales of \$130,000,000. This compares very favorably with our own.

2. We Study Our Market

Our salesmen are assigned the firms they are expected to sell as accounts and not as purchasers of individual jobs. The trade journals of these firms are subscribed to and our men learn to speak their trade language. They learn their selling promotion seasons. They have lifted themselves completely out of the order-taker and peddler-type of salesmanship.

By studying our market we pick and choose from St. Louis' widely diversified industries those account prospects who can give us a constant, all-season work load. From candy and chemicals to shoes and booze, we sell accounts whose printing requirements provide an overall year-round production activity.

3. We Study Our Place in the Market

Our salesmen are trained to know each and every piece of competitive equipment in our area in addition to a

(Continued on Page 108)

Printed on Maxwell Offset—Basis 80—Camberra Finish



"THE CATHEDRAL" by Edvard Johnson

A merry Christmas from the makers of Howard Bond...

Printed on Maxwell Offset—Basis 80—Camberra Finish



"MOTHER and CHILD" by Robert Keys

...a happy and successful New Year from Maxwell Offset

HOWARD PAPER MILLS • URBANA, OHIO • DIVISION OF  **St. Regis**
PAPER COMPANY

Impressions of an Old-Timer

By Roger F. Callahan
Revere, Mass.

LITHOGRAPHIC management knows, as well as you and I, that a good idea can come from anywhere in the shop. For this reason it has always been a puzzle to me why some shops allow the suggestion box to die a lingering death. There are shops that stagger along making the same mistakes time and again. Quite often the men see a solution but keep quiet.

A good idea that saves the firm money is certainly worth \$10, \$25 or \$50 and once in a while, much more. If a worker makes a hit with an idea and receives a check, you can rest assured he will submit another in due time, for he can always use the money. Ideas should be typewritten, double-spaced, dated, signed and sealed. If an idea is any good, then it is worth presenting at its best.

The Common Touch

Lucky indeed is the little shop where the owners or department heads possess that rare quality of the "common touch". I have seen a few words of sincere praise for a job well done do more genuine good for a man or group of men, then all the formal memos that were ever thumb-tacked to a bulletin board. A few words at the right time and place seem to work miracles.

Attitudes of Workers

Over the years I have watched and studied my co-workers, their attitudes on life, their job, etc. By far the large majority of them take great pride in their work; are conscientious and eager to do their very best. Once in a great while, however, along comes the "don't give a damn" type. His work, along with his attitude, usually is sloppy. Seldom does he make many friends and before long he is gone, drifting from one shop to another.

One such character worked in our shop only a few days until he vanished, after the following conversation. He had found a hiding place in a little used storeroom. The owner of the plant had been down in the pressroom and took a short cut through this storeroom, bound for another department. He had somehow gotten some lithographic ink on his hands and shirt and our lazy friend mistook him for one of the workers. "Hi Bud," he

called to the owner. "Have you got the time on you?" . . . Sure, it's 3:30, why?" "Cripes," groaned our friend. Is that all it is? The time sure drags like 'hell' around here."

Every Trade Has Its Grapevine

Among lithographers the news one gets via the "grapevine" has its thrills and surprises. A chance meeting on a city street might sound something like this. "Well for heaven's sake, if it isn't Joe! How are you. How long's it been, Joe? . . . five or six years? . . . What-Eight years? Still working in the same old place, Joe? You quit four years ago? What? . . . you're over at that new shop on Blank St. Say . . . that's a nice shop. I've heard some of the boys mention it.

"Ever see Charlie? . . . What? He's a boss in a big plant out West, . . . you're kidding! Where's Sam these days? He what . . . owns his own shop in New York? . . . Sam? . . . I don't believe it. How about that guy Larry that worked near you? . . . He's teaching lithography for the Mexican Government! Now I've heard everything. So long, Joe, I'll see you around. . . . Huh . . . that Sam, owns his own plant . . . well I'll be darned."

Giving Them the Business

I imagine most of us in lithography have at one time or another tried to explain the business to an outsider, or small group. Got a surprise, didn't you? It's not so easy, is it? There you were with all those years in your trade, but when you tried to tell someone else what you did and how you did it, all you got was a lot of scowls and shaking heads. So you started all over again and tried to rephrase the explanation and you got in even deeper.

It's an uncomfortable feeling not to be able to make someone understand just what you do for a living. I remember as an apprentice, working on a practice job when a small group of visitors came through. The sketch I was reproducing was a large oil and some of the group thought I had painted the picture. They just don't know. I've seen them go out of a litho plant after a tour, completely bewildered at what it was all about, even with a competent man explaining everything.

So don't worry about it, it's probably the same in all the technical trades. Nevertheless . . . we have every right to be proud of our part in the printing industry so never pass up the chance to talk about it and get that word "lithography" in there often.

Should Apprentices Have a Hobby

Forty-two years is a long time but it seems only yesterday that we apprentices gathered at one end of the shop and mixed the tusche for the artists each morning. First we collected the inkwells from the men, emptied them and threw them into water to soak while we made the new ink. It was slow work (it took nearly two hours to do it right), and we'd talk about our escapades of the night before, each one trying to out-do the other. Some of the stories got pretty weird. ★

The ColorTran Lighting System

By *Milton Forman*

Vice President, Natural Lighting Corp.,
Burbank, Calif.

SEVERAL years ago a lighting system which had formerly been in studio photography and motion pictures was introduced into the graphic arts industry. The system—known as ColorTran—was invented by Lyndon V. Grover, who was searching for a method of replacing photo-flood lamps with ordinary household lamps. Although his basic system of over-volting household lamps was developed in 1949, a number of other elements developed since then were needed before it could be properly applied to the graphic arts industry.

ColorTran produces very high levels of illumination, permitting short exposures. We feel it is the only system that can be used to light all boards evenly at the film plane. It is inexpensive, easy to install and has low operating costs. Both the intensity and color temperature can be changed by the cameraman as needed.

Ordinary incandescent lamps at 2850° Kelvin have very little blue and violet. With the use of the ColorTran converter, the blue can be increased a relative value of 31 percent or more while the other colors (green yellow and red) have very high relative energy. In color separations, therefore, the yellow and red exposures will be much shorter than arcs, while the blue will be longer.

The multi-source nature of the light and the character of the flooding of the copyboard from many points, results in a considerable decrease in the amount of shadow lines when pasteups are photographed. Therefore, there is less opaquing to be done.

ColorTran Explained

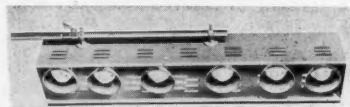
A number of developments were necessary before ColorTran was suitable for use in the graphic arts industry. Figure 1 shows the effect of increasing voltage on the intensity of an ordinary tungsten lamp. Observe that the intensity increases 4½ times as the voltage is increased from 120 to 185 volts. Lamp life is decreased considerably.

It took the development of a special reflector to harness the 90 percent of light loss and distribute it on the copyboard. Figure 1 shows that the reflector increases intensity six times. Therefore, with the use of higher voltages and the ColorTran reflectors, the useful light has been increased 27 times. This is a typical case in which an ordinary household lamp has been used to light a copyboard to an intensity level exceeding arc light capabilities.

Electrically the ColorTran system is highly efficient. With a 150-watt lamp and a 220-volt input into the ColorTran converter, .7 amperes are consumed when the lamp burns at 120-volts or 2850° Kelvin. At 185-volts and 3450° Kelvin, only 1.4

amperes are consumed. The ampere consumption has been doubled and the intensity has been increased four and a half times.

Given such a high intensity light source, the ColorTran system is then engineered to light the copyboard evenly. The Linelite is made longer than the board itself in order to avoid fall-off at the top and bottom middle sections of the board. The lamps at the outer edges of the board are spaced closer together to produce higher illumination at the

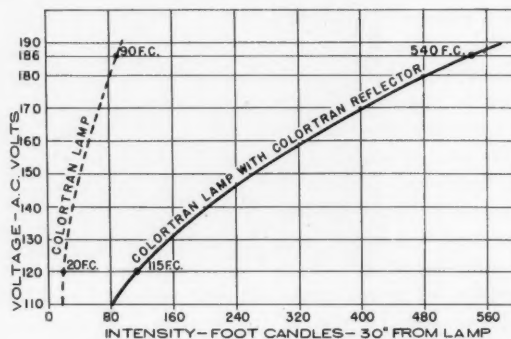


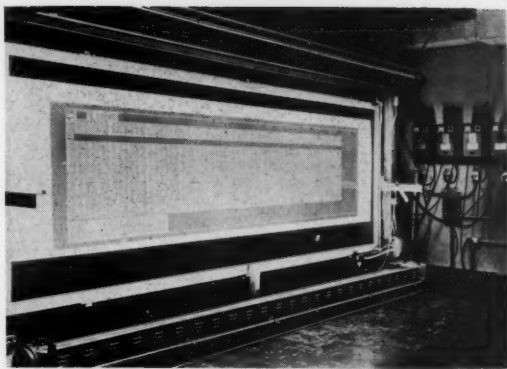
corners. This compensates for the loss of light due to the longer distance from the corner of the board to the lens and the corner of the film plane. The reflectors are so spaced that the light patterns overlap, achieving very uniform light distribution.

Lighting Large Copyboards

The problem of lighting very large copyboards, or very small copy-

Figure 1





A 15' 2" blue print copyboard illuminated by 26-lamp LineLites.

boards, becomes a very simple one. It is merely a question of combining and adding lamps to light even the longest boards. To date the longest board that had been lighted with ColorTran is 192 inches (above). Here intensity of the ends of LineLites is independently increased, since edges of the long boards are so much further away from the lens than the center. A LineLite unit can be increased 33 $\frac{1}{3}$ percent in intensity of output by using 200-watt lamp instead of 150-watt lamps.

High production shops often require greater intensities than normally provided. For such needs

ColorTran has designed a line of double LineLites (below). These double LineLites are also available for wide boards where it is not possible to hang the LineLites on top and bottom. Up to 100-inch-wide boards have been illuminated by placing these LineLites vertically on the sides in the normal manner.

When powered at the highest recommended voltage of 186-volts, ordinary 120-volt household lamps have a life (burning at high) of between 15 and 25 hours. This is adequate for many applications but it nevertheless has been desirable to provide a special longer life lamp.

The ColorTran lamp has a filament sturdy enough to give four or five times the life of the household lamp. These lamps make certain compromises in output. Intensities are reduced 15 percent and color temperature is slightly lowered.

Color Control

At this point a further examination of the nature of the spectral energy of the ColorTran system is in order. As has been shown, an increase in lamp voltage results in higher color temperature. (Fig 2.) At 186-volts the color temperature reaches 3450° Kelvin. The measure of control of spectral output of tungsten lamps that can be achieved with ColorTran is evident. When the lamps are burned at 120-volts, the lowest curve shows 2850° Kelvin with a minimum of blue and a very high proportion of yellow and red.

At 3200° Kelvin, the proportion of blue increases 8.3 times with the red and the general intensity only four times. Relative proportion of blue has been doubled. That is why,

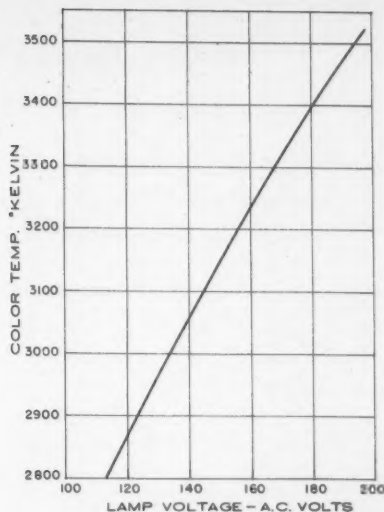


Figure 2

when shooting from color to black and white, a cameraman can highlight or increase the density of the blue while maintaining the other values for red and yellow. This is better than using a low density filter, we feel, because a filter may alter the balance of red and yellow.

In summary, then, we feel that the ColorTran principle has many advantages for a wide variety of graphic arts uses. For line and halftone work in lithography, it gives even illumination of the copyboard and short exposures, particularly when a double row of lights is used. By using booster exposures (without screen), halftones can be produced with greater contrast.

Color separation jobs can also be handled to advantage. Since there is no flicker in the lights, sets of separations will have equal and uniform density. The balanced spectrum requires less dense filters and results in lower exposures. For transparencies, back lighting (bounced off a reflecting screen) can be used.

The even lighting and color temperature features of the ColorTran setup give it advantages also for Xerography, Ektalith, Auto-Positive and other processes. ★

new product
report...

**The index and/or tab
been removed and
separately within this**

**For roll film users, this
current volume year
of the microfilm. For a
this information is a
microfilm.**

**For microfiche users
contents is contained**

table of contents has
and photographed
this volume year.

this information for the
ear is at the beginning
For a prior year volume,
is at the end of the

sers, the index and/or
ned on a separate fiche.

TECHNICAL BRIEFS

These abstracts of important current articles, patents, and books are compiled as a service of the Lithographic Technical Foundation, Inc. They represent statements made by the authors and do not express the opinions of the abstractors or of the LTF.

Since some of the abstracts are from abstract journals, LTF cannot furnish photostats of all of the original articles. If the title is marked with an asterisk (*), LTF has no further information than that contained in the abstract itself. Inquiries about these items should be sent direct to the source that is named. If you want copies of U.S. Patents, write direct to the Commissioner of Patents, Washington 25, D. C. Send twenty-five cents for each patent desired. Make checks or money orders payable to "Treasurer of the United States." British patents may be obtained for forty-five cents from the Patent Office, 25 Southampton Buildings, London, W.C. 2, England, or as in the case with all foreign patents, they may be obtained as photostats from the U.S. Patent Office, Washington 25, D. C.

If the title of the abstract is *not* marked with an asterisk (*), LTF can supply photostats of the original article. **NOTE:** When placing orders for such photostats, please give the **COMPLETE** description of

article wanted—**TITLE, AUTHOR, PUBLICATION, and PAGE NUMBERS.** When articles appear in LTF's publication *Research Progress* as well as other publications, *Research Progress* will be sent. The charge for copies of *Research Progress* is thirty cents to LTF members and one dollar to non-members plus three cents postage. The charge for photostats is \$1.00 per page (check abstract for number of pages) plus four cents per page postage. Postage charge for orders from places other than Canada and the United States or its territories and possession is 15 cents per page of photostats or 15 cents per copy of *Research Progress*. Orders from companies or individuals who are not members of LTF cannot be filled until payment is received. Orders with payment enclosed receive immediate attention.

LTF also has mimeographed lists of (1) "Periodicals Abstracted by the Research Department" and (2) "Books of Interest to Lithographers." These are available for twenty-five cents each in coin or U.S. stamps. All inquiries concerning these lists and photostats of original articles (not marked with an asterisk) should be addressed to: Lithographic Technical Foundation, Inc., Research Department, 1800 So. Prairie Ave., Chicago 16, Ill.

pp. 2-5 (4 pages). Techniques in letterpress are changing. This study of current trends briefly surveys needs and indicates that the logical course of letterpress development would involve: (A) Photographic type composition; (B) Light sensitive plastic or powderless-etched metal plates; (C) Rotary presses. 4 Illustrations.

MCALLS PROVES ACCIDENTS CAN BE REDUCED. H. H. Slawson. *Modern Lithography* 28, No. 3, March 1960, pp. 36, 37, 38 (3 pages). Accident rate was reduced from 9.66 to 1.44 lost time accidents per million man-hours over a six year period. Employee education is given chief credit. Ten safety rules applying to press operation are listed. Safety rules for other areas are touched on. 5 Illustrations.

WHAT DOES THE FUTURE HOLD? R. E. Fisher. (From a talk given at a meeting of the Pittsburgh Club of Printing House Craftsmen.) *Modern Lithography* 28, No. 3, pp. 32, 3, 4, 143 (4 pages), March 1960. Author points to growing population, higher educational level, and increased income as forecasting: "Advertising budgets into the stratosphere." Weaknesses in the situation are pointed out as 1. Printers are not making enough money; 2. Some of the important people printers serve are not making enough money; 3. Printers are not doing all they can to make their service more attractive. On the last point, the tendency to resist change is cited. As an example of progress, the P.D.I. Color Scanner is described. 1 Illustration.

PLANNING OFFSET OR LETTERPRESS PLANT REQUIRES CAREFUL ATTENTION TO MANY DETAILS. Olin Freedman. *The Inland and American Printer and Lithographer* 144, No. 5, February 1960, pp. 45-46 (2 pages). Plant planning stems from two basic needs: modernization or expansion, and can involve existing quarters, expansion or relocation. Some planning steps required include complete engineering drawings of existing buildings, surveys and complete data on zoning, utilities available and building regulations for new buildings. It is necessary to study contemplated work loads by departments, then start layouts by departments which can be assembled into an overall layout. The services of a specialist for such work are suggested.

A PRINTER CAN PREVENT FIRE LOSS. Jack Stroube. *Printing Production* 90, No. 5, February 1960, pp. 43, 4, 5-78 (4 pages). It is pointed out that actual fire loss can be small in comparison to the costs of side effects such as the loss of business due to the loss of use of equipment during repair or replacement. Basic fire hazards are listed as: 1. Housekeeping; 2. Hot surfaces; 3. Open flames or sparks; 4. Flammable liquid; 5. Electricity; 6. General maintenance. When a hazard is identified, it can be eliminated, isolated or protected. Some insurance companies provide engineering services in such matters. Training programs are suggested to combat the human failure part of the problem. *Modern Lithography* 28, No. 2, February 1960, pp. 34, 5, 6, 121 (4 pages).★

Graphic Arts—General

GRAPHIC ARTS HAS WAYS OF CORRECTING THE RESEARCH MESS. Marvin C. Rogers. *Printing Production* 90, No. 5, February 1960, pp. 50, 1, 2, (3 pages). This final installment of a series is largely a broad general discussion of the philosophy of research as applied to the graphic arts specifically. A five-element plan for graphic arts research is outlined as follows: 1. A central research activity for basic study; 2. Specialized process research and development (with LTF cited as one example); 3. Specialized industrial research and development; 4. Specialized equipment research and development; 5. Highly specialized development.

FOIL PRINTING — A GROWING TREND. Warren L. Rhodes. *Printing Magazine* 84, No. 2, February 1960, pp. 64, 67, 71 & 96 (4 pages). Cited figures show growth of printing on foil (doubled since 1952). The advantages of foil cited include desirable characteristics for packaging (particularly) of foods, and striking appearance. The preparation of the foil by laminating, coating, etc. by a converter enables a printer to obtain the necessary printing characteristics. Printing by the various processes using different inks is discussed and suggestions given. An insert illustrates some

of the capabilities of this type of printing.

FOUR-COLOR PROCESS GUIDE — from Photo-Litho Notes. J. S. Mertle. *National Lithographer* 67, No. 2, February 1960, pp. 48 (1 page). Comments on a new book put out by the Collier Photo Engraving Co. Work is comprehensive in scope, covering all the hues likely to be encountered in 2-, 3- and 4-color halftone reproduction. More than 5,600 color patches about 1 1/2 x 1 1/2 in. are identified by dot percentages. Reviewer comments "A labor of love on the part of the originators and a practical contribution to the craft by the publisher."

***ELECTROSTATIC POWDER IMAGE TRANSFER.** French Patent 1,205,569 4/24/57-2/3/60. R. W. Gundlach to Rank-Xerox Ltd. *Anso Abstracts*, Vol. 20, No. 4, April 1960, page 206. The powder image carried by a photoconducting or insulating coating on a conducting support, e.g. a selenium-coated aluminum plate, is transferred to another conducting support, such as a lithographic metal plate, by charging the insulating coating and connecting the two conductive supports which thus acquire the opposite charge. The process is applicable to printed circuits.

WHICH WAY LETTERPRESS? Alex C. James. *Graphic Arts Focal Point* #5, 1960,

TECHNICAL SECTION



Tone Line, Posterizing, Stipple Prints and Duotones all are

Photographic Derivatives

By *Donald R. Spear*

Eastman Kodak Company
Production Specialist

ILLUSTRATIONS in one form or another have been used to depict an idea or to tell a story for almost as many years as man has inhabited this earth. As early man recognized his utility to convey a thought, modern advertising agencies carry their concept a little further to create a mood, an interest/or desire for a product. The increased use of pictures has proved that Confucius was right and that a picture is worth a thousand words — or probably even more. Another value of pictures is that they are the universal language requiring not translation but individual interpretation. The interpretation one gets from a picture on a printed page depends upon the subject matter and the method of presentation.

Modern reproductions employ the use and concept of halftones. Ever since the invention of halftone printing, the volume of printed illustrations of one form or another has grown steadily. This is true in black-and-white, and now is even more true in the field of color. Certainly, there is no argument that the development of halftones has offered a tremendous boost to the field of photomechanical reproduction and printing. The halftone is one of the most important tools that lithographers have at their disposal.

From an address delivered at the 28th annual convention of the NAPL, Chicago, Oct. 7.

In nearly all cases, the halftone is the proper medium for illustrating a subject. There are occasions, however, when other than conventional halftones for illustration may, more readily, create the desired effect or mood. We are referring to photomechanical means of reproduction by other than the use of halftone dots. A picture is worth a thousand words, but if we employ a unique presentation of that picture, it may mean a saving of many, many thousands of words.

I am going to discuss, then, the application of well-known photographic concepts and various techniques to make photomechanical reproductions without using halftone dots. In other words, photographic derivatives.

Interestingly enough, these photographic uses do not involve complicated equipment, only items that are available in almost every darkroom.

For example, I am referring to such things as the Kodak Tone Line Process, Posterization, Duotones, stipple effects and others. This may surprise you, but we can make duotones without using dots.

Tone Line Process

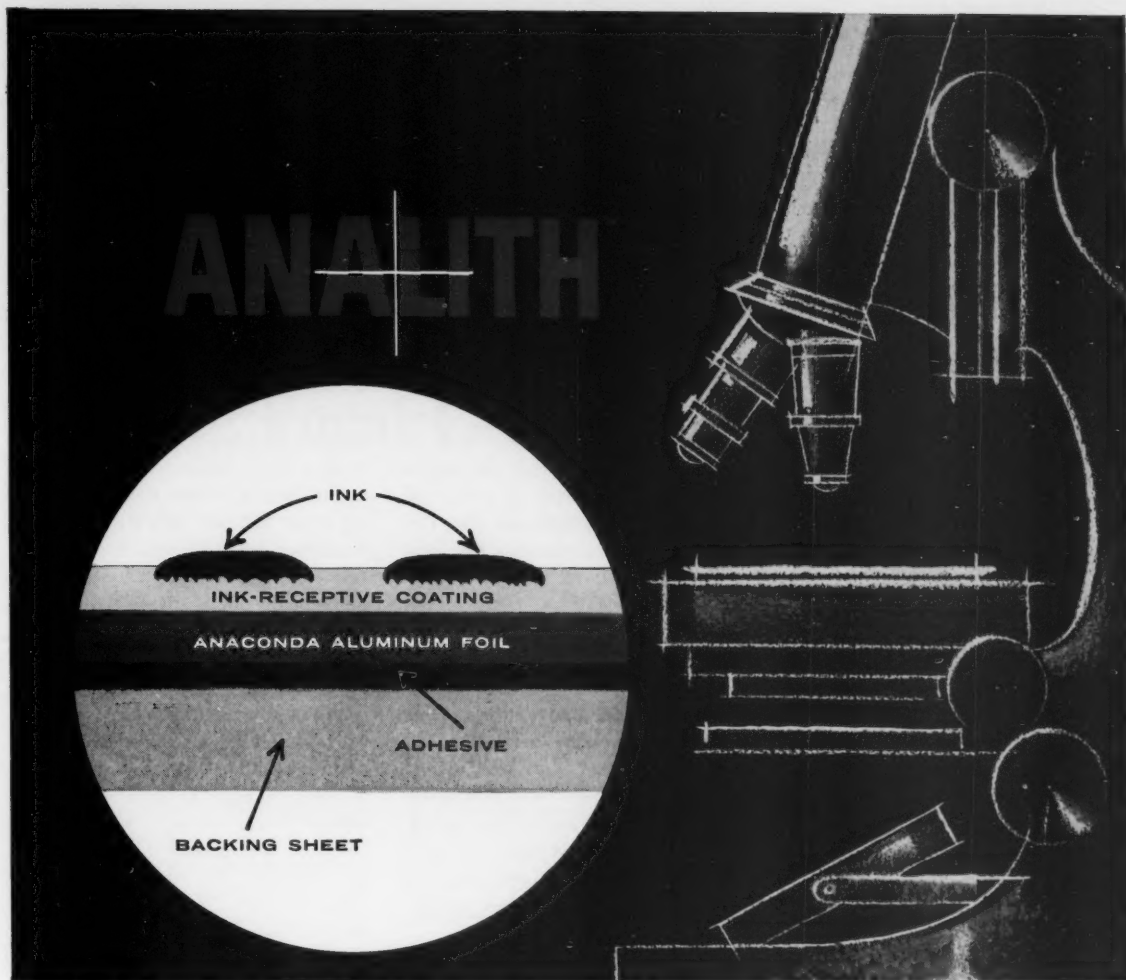
First, the Kodak Tone Line Process, or, as it is sometimes called, line-art photography. If you were to define this name, it might be as follows: A photographic procedure

for converting, by photography, a continuous tone picture or print into a simulated line drawing. The procedure for doing this is amazingly simple, and basically requires no more equipment than is available in the average darkroom.

As a starting point for the Kodak Tone Line Process, there should be a good continuous tone black-and-white paper print. Using a conventional process camera, or a view camera, the cameraman makes a continuous tone film negative of that print. Actually if the original negative from which the print was made is available, it may be used.

However, it is usually desirable to make a new negative of somewhat higher contrast than the original from which the print was made. The higher contrast of the negative will afford more control over the type of reproduction that may be desired.

From the continuous tone film negative, a contact continuous tone film positive is exposed and developed. If it is desired to maintain some of the middle tones of the scene, then the film positive should be made to a slightly lower contrast than the negative. For example, a good starting point would be to have the positive about 80 percent of the density range of the negative. If a parts catalog is being prepared in which only an outline is needed, then the



ANALITH pre-coated foil stock is custom-produced by Anaconda Aluminum to make your foil lithography more profitable!

This representation of a magnified cross-section clearly shows why ANALITH pre-coated foil stock from Anaconda Aluminum can increase your profits in the expanding foil lithography field.

The ink-receptive coating shown means more trouble-free press runs at *profitable press speeds*. Actually, all laminated foil stock must have such a coating on which to print. And ANALITH foil stock comes to you pre-coated to meet your job requirements, ready for your press—all a part of Anaconda Aluminum's custom-production of your order.

Custom-production of ANALITH foil stock starts with precision rolling of the foil itself. It continues through lamination to the proper paper backing for the best lithographic reproduction. Then comes the ink-receptive coating. The result? The finest printing surface available for your foil lithography.

When you buy foil for packaging or lithography, remember . . .

Every industry has one member who specializes in customer satisfaction

ANACONDA ALUMINUM COMPANY • GENERAL OFFICES, LOUISVILLE, KENTUCKY

MODERN LITHOGRAPHY, December, 1960

This custom-production procedure is followed on *every single order* at Anaconda Aluminum, assuring you more satisfactory, more profitable runs because your order is tailored to your particular job.

ANALITH foil stock, as well as other special pre-coated aluminum foil stocks for other printing processes, is available to you in any form—colored, embossed and laminated to a variety of paper and board stocks. Call your nearby Anaconda Aluminum representative now for full information, or write Anaconda Aluminum Company, Dept. MA-12, P.O. Box 1654, Louisville 1, Kentucky.

*Trademark Anaconda Aluminum Company, Louisville 1, Ky.



ANACONDA ALUMINUM

positive should be made as strong as the negative.

The theory: If the film negative and film positive are precisely registered, the light area of one will be completely cancelled by the dark area of the other so that theoretically no light would pass through the two films. However, if the negatives and positives are registered back to back so that there is literally a space between the two emulsions, and then a light is held at an oblique angle, an undercutting or edge effect is created. This converts the gradual tone changes of a continuous tone into a line or simulated drawing effect.

If the negatives and positives are registered as suggested, and exposed by angled light to a high contrast film, a line-film positive is created.

As most printing processes work from negatives, it is very simple to prepare a high-contrast negative by contact from this positive. Obviously, minor corrections can be made at at this time.

The result then is a tone-line print of the original continuous tone print. This is a method of creating a special or unusual effect without the use of conventional halftones and yet at the same time maintaining photographic quality.

Posterizing

Another attractive variation of photomechanical reproduction is posterizing. In this type of picture, the details are represented by printing down solid colors or uniform tints, but at different densities or different levels of graininess. Again, this is a photographic application to achieve a little different effect.

Like any other process, there must be a starting point and for this it would be any good continuous tone photographic paper print.

Then a high contrast negative is made from the continuous tone print. Because the high contrast film is used, only one or two of the many tones in the picture will be registered. For the first negative, the exposure is so controlled that only the high-light tones are recorded.

Two or more additional high contrast negatives are made of the same photograph. In this case, however, the exposure is progressively increased so that records are made of the high middletones, low middletones, and the shadow areas.

Using these negatives, the shadows are printed down using a high density ink. The low middle tone area is then printed, using an ink of less density or grayness, and then the same idea is carried through for the high middletones and highlights. In place of using solid colors, it is possible to use halftones for each of the negatives. In this case the degree of grayness or density is controlled by the size of the printing dot. For any one negative, the dot size will be entirely uniform.

There are many occasions in the course of printing pamphlets, brochures, mailing pieces and folders when a posterized rendition would create an appeal and demand more attention than would the usual conventional halftone.

Incidentally, the two techniques just discussed are not limited to one printing process, but may be used by lithographers, letterpress printers, and gravure and silk screen houses.

Stipple

In a sense, a stippled print or reproduction could be considered a halftone, but with an irregular non-repetitive dot structure.

For this process, the graphic arts cameraman will put the original black-and-white photograph or print into the copy board of a process camera.

To obtain a stippled effect requires nothing more than the use of any irregular coarse-ground or design glass that is mounted in the rails of the process camera in a manner similar to a conventional ground glass. The irregular surface of the ground glass creates an interference light pattern that, when exposed to a high-contrast film, provides a grain effect. As with a conventional crossline glass screen, the stipple is controlled by adjusting the distance between the glass and the film plane. In theory then, the effect is very much like that of a glass

screen. Contact stipple screens are also available.

A reproduction by this technique may be classified as a halftone because it does contain a full scale of tone reproductions, but the effect is certainly quite different.

Duotones

This seems to be a subject that comes up for discussion any time two or more graphic arts cameramen get together. There seem to be as many ideas on how a duotone should be made as there are people making them.

In a sense, however, duotones are an attempt to create the impression of color without actually doing a four-color reproduction. In all fairness, in many cases duotones are undoubtedly more effective and have more appeal than would a so-called facsimile four-color photomechanical reproduction.

Probably the main point to keep in mind when printing duotones is that the strong color, which is usually a black, should be printed at the regular angle of 45°. The weaker color or hue should be rotated to an additional 30° or printed at an angle of 75°. If these angles are carefully measured, the probability of creating a moire pattern is virtually eliminated.

In some cases, the black halftone or the strong color halftone is made to a full scale. That is, small or non-existing halftone dots in the extreme highlights, and virtually a solid in the shadows. When this is done, operators sometimes make the color halftone with no dots in the highlight steps and print fairly heavy down through the shadows.

Other variations include printing the strong color starting at high middle tones down to the shadows and letting the color halftone carry the highlight, high middletones and middletones. Some concerns make both the black and the color halftone precisely the same.

Another very important consideration is the choice of hues used to represent the reproduction. Unless a shock effect is desired, the hues

(Continued on Page 111)

PHOTOGRAPHIC CLINIC



Finding Focal Length for Enlargements

By Herbert P. Paschel

Technical Editor

Q: I have a 24" camera with a 19" lens and can get only 3x enlargement. How can I find out the focal length of a lens that will give me the greatest possible enlargement?

B. I. P., ORLANDO, FLA.

A: In order to obtain a specific relationship between image and copy sizes there must be a corresponding relationship between the image-to-lens distance and the image-to-copy distance. If only one of these distances can be achieved and not the other, there can be no focusing of the image to the size and sharpness desired.

The distances separating the camera components are termed the conjugate foci and, except at same size one is always greater than the other. But at no time (focus setting) is the

It is impossible for Mr. Paschel to give personal replies by mail, but all questions will be answered in this column as soon after receipt as possible. The columnist also is available to the trade as a consultant for more complex litho problems.

distance between lens and film, or lens and copy, ever less than the focal length of the lens.

The critical distance in enlarging the image is the extent to which the lens can be separated from the image (focal plane). How close the copy

can be brought up to the lens is the second factor of importance. The physical limitations of your camera, i.e., the length of the lensboard driving mechanism, the capacity of the bellows, the minimum distance of the copyholder and the ability to use lensboard extenders (cones), will influence just what you will be able to achieve.

To get a rough idea about the enlargement possibilities on your camera adjust the lensboard to the maximum enlargement position. Then bring the copyboard as close as possible to the lensboard. Now measure the bellows extension and the distance between lens and copyboard.

The minimum distance between copyboard and lens approximates the focal length of the supplementary lens

Table of Object and Image Distances for the Goerz Apochromat Artar

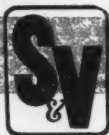
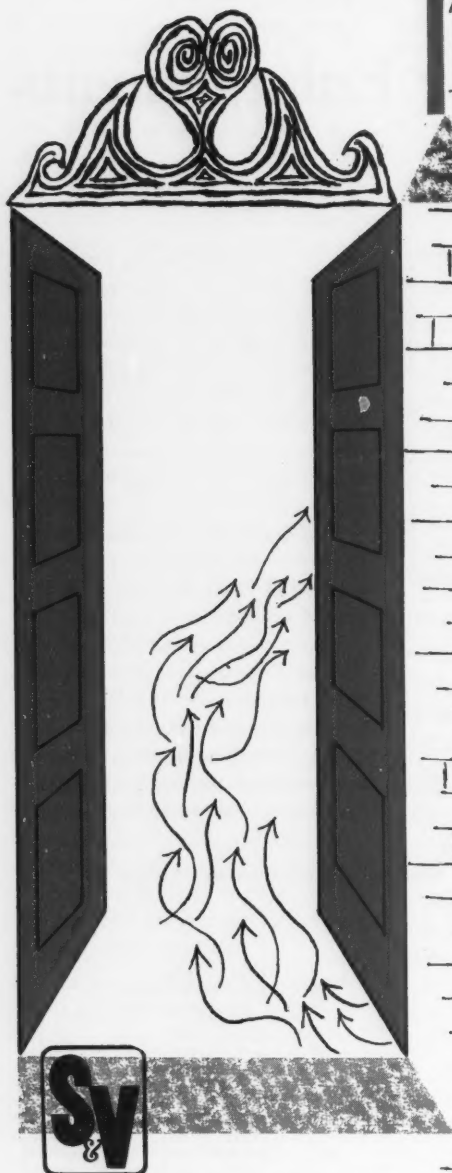
FOCAL LENGTH OF LENS

PERCENT REDUCTION	DISTANCES	4"	6"	8 1/4"	9 1/2"	10 3/4"	12"	14"	16 1/2"	19"	DISTANCES	ENLARGEMENT
100%	Lens to Copyboard	8.	12.	16.5	19.	21.5	24.	28.	33.	38.	Lens to Film	Same Size
	Lens to Film	8.	12.	16.5	19.	21.5	24.	28.	33.	38.	Lens to Copyboard	
	Copyboard to Film	16.	24.	33.	38.	43.	48.	56.	66.	76.	Copyboard to Film	
50%	Lens to Copyboard	12.	18.	24.75	28.5	32.25	36.	42.	49.5	57.	Lens to Film	2x
	Lens to Film	6.	9.	12.375	14.25	16.125	18.	21.	24.75	28.5	Lens to Copyboard	
	Copyboard to Film	18.	27.	37.125	42.75	48.375	54.	63.	74.25	85.5	Copyboard to Film	
33 1/3%	Lens to Copyboard	16.	24.	33.	38.	43.	48.	56.	66.	76.	Lens to Film	3x
	Lens to Film	5.33	8.	11.	12.67	14.33	16.	18.67	22.	25.33	Lens to Copyboard	
	Copyboard to Film	21.33	32.	44.	50.67	57.33	64.	74.67	88.	101.33	Copyboard to Film	
20%	Lens to Copyboard	24.	36.	49.5	57.	64.5	72.	84.	99.	114.	Lens to Film	5x
	Lens to Film	4.8	7.2	9.9	11.4	12.9	14.4	16.8	19.8	22.8	Lens to Copyboard	
	Copyboard to Film	28.8	43.2	59.4	68.4	77.4	86.4	100.8	118.8	136.8	Copyboard to Film	
10%	Lens to Copyboard	44.	66.	90.75	104.5	118.25	132.	154.	181.5	209.	Lens to Film	10x
	Lens to Film	4.4	6.6	9.1	10.5	11.8	13.2	15.4	18.15	20.9	Lens to Copyboard	
	Copyboard to Film	48.4	72.6	99.85	115.	130.05	145.2	169.4	199.65	229.9	Copyboard to Film	

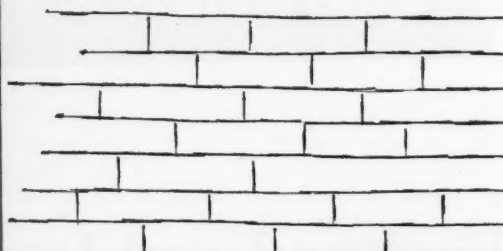
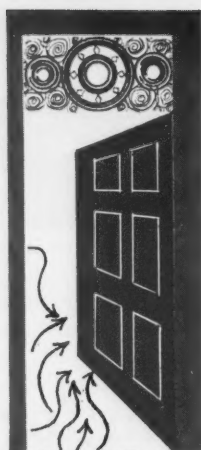
Table of approximate distances (in inches) between lens and film, lens and copy, and the total separation between copy and image for various focal length lenses. (Courtesy C. P. Goerz American Optical Co.)

THE DAVID-M BLANKET
HAS BEEN WELCOMED
BY THE MAJORITY OF SHOPS
WHERE THE VERY
HIGHEST QUALITY HAS BEEN
THE PRIME OBJECTIVE.
WE WELCOME YOU
TO TRY THE
DAVID-M BLANKET
AND STEP UP
WITH THE BEST.

GURIN-RAPPORT INCORPORATED
2500 S. MICHIGAN AVE. CHICAGO



Sinclair & Valentine, exclusive representative of the



you can use without recourse to a lens cone (extender). If the lens-to-copy distance is 12", for example, you cannot use a lens of less than 12 inches focal length. (The reason for this is that neither of the conjugate foci can ever be less than the inherent focal length of the lens). Now let's see what we could achieve with a 12" lens. Since you can get a 3x enlargement with the 19" lens, the bellows extension must be at least $76'' - 3'' \times 19'' + 19'' = 76''$. Deduct 12" from this figure and divide the remainder by 12.

$$\frac{76 - 12}{12} = 5.3$$

This indicates that you can get a maximum of 5.3x enlargement with the 12" lens.

An 8" lens would permit 8.5x enlargement on the basis of the available bellows extension but, to achieve this, the distance between lens and copy must be a minimum of 9 inches (approximately). In the example cited, the minimum separation between lens and copy is fixed at 12". Obviously, a lens cone must be employed with lenses of less than 12" focal length in order to get any focus settings with the bellows at maximum extension. An 8" lens would have to be extended at least 4" beyond the lensboard plane.

Whenever a lens is mounted in advance of the normal lensboard plane, the opening in the lensboard must be large enough to permit passage of the cone of light projected by the lens. If not, it will cut off part of the image. To determine this factor you must know the angle of view of the lens in question. Knowing this, you can ascertain the size of the opening required for any distance behind the exit node of the lens. If the normal lensboard opening is equal or greater than the indicated opening, the arrangement will prove satisfactory. If not, the opening must be enlarged or the lens cannot be used without loss of image area. (Note: Many modern cameras with behind-the-lens shutters, filter wheels, compensating lenses, etc., do not permit any modification of the lensboard.)

The accompanying table illustrates

the distances required with lenses of different focal lengths. Distances for the in-between values, or other focal lengths not listed, may be computed by means of the following formula.

Conjugate distances for enlargement:

$$\begin{aligned} A &= \text{Lens-to-film distance} \\ B &= \text{Lens to copy distance} \\ R &= \text{Image to copy ratio} \\ \frac{\text{Image size}}{\text{Copy size}} &= R \end{aligned}$$

$$\begin{aligned} f &= \text{Focal length of lens} \\ A &= (f \times R) + f \\ B &= f/R + f \end{aligned}$$

Another factor to consider is the type of copy to be enlarged. With extremely short focal length lenses the lensboard and copyboard are so close together that the camera lights cannot be positioned properly, if at all, thus making it virtually impossible to shoot reflection copy. This is no problem, however, when the copy is transilluminated (back-lighted) as in the case of screening continuous tone negatives or separating color transparencies.

(Continued on Page 113)



SKUM-OFF*

PLATE ETCH FOR ALUMINUM

It's quite natural that you should expect a steady stream of advancements in lithographic chemicals from RBP... it's a way of life with RBP. SKUM-OFF is the latest development from RBP designed to help you in cost reduction and quality improvement. Here are some of its outstanding advantages:

<ol style="list-style-type: none"> 1 Works on any type aluminum plate — deep-etch, surface, pre-sensitized or wipe-on. 2 Maintains exceptionally clean non-image areas, will not weaken or injure image areas. 3 Removes scums and stubborn stains other plate etches can't remove. 4 Does superior job of desensitizing aluminum plates. Plates remain scum free much longer, with sharp- 	<ol style="list-style-type: none"> ly reduced incidence of ink dot scum. 5 Contains no bichromates or harmful skin irritants. 6 Contains no phosphoric acid — does not "strip" plate rollers. 7 Can be used as a pre-etch, as well as final etch. 8 It's the most effective improvement in plate etches in many years, yet costs no more than conventional plate etches.
--	---

Write today for additional information and prices.



CHEMICAL and SUPPLY, INC.

1640 N. 31st Street • Milwaukee 8, Wisconsin

MAIN OFFICE AND PLANT Milwaukee, Wis.
SALES OFFICES 1144 Ryan Ave., St. Paul 13W, Minn.
43-20 43rd Ave., Long Island City 4, New York
DISTRIBUTED throughout the United States and Canada

*Trademark

THROUGH the GLASS



OUR coverage of the NAPL, PIA and NMDA conventions in the November issue permitted us no room to comment on some of the unusual goings-on at the NAPL exhibit. In addition to the press receptions noted last month, several of the exhibitors, including Chemco, tried, mostly in vain, to talk shop while visiting lithographers gave their undivided attention to the exciting Yankees-Pittsburgh World Series games on a TV set in the booth.

Among the give-aways and gimmicks were the usual basket of highly polished apples offered by NuArc, rulers from Gane Bros., ink samples from Davidson, oversized sunglasses from Litho Chemical & Supply, and toys from Chicago Litho Plate Graining Co.

That old player piano at the Roberts & Porter booth was won by John Crane of Allied Art, Cincinnati. Dressing up the scene considerably was the latest in the Roll-O-Graphic line—a well-shaped lass named Ilze Taurins. And among the “step-right-up” demonstrations were ones on the improved zinc plates, PDI’s MRX wipe-on plate, Polychrome Corp.’s presensitized plates and the Dewey & Almy two-piece blanket.

The only thing missing from the show, as a matter of fact, was the irrepressible “Mark the Knife” Gerstein, who was probably back in Buffalo launching his sales drives against unwary photoengravers.

William H. Walters, busy president and chief executive officer of the Diamond National Corp., who was president of U. S. Printing and Lithographing Co., before the merger, now has still another job—director of Roosevelt Raceway, New York trotting track. Mr. Walters is a former president of the Folding Paper Box

Association of America and the Lithographers National Association and is a prominent figure at graphic arts conventions.

Some of the (less observant?) folks around the office of Printing Industry of Illinois in Chicago woke up with a start when they sat down to read a recent issue of the *Chicago Daily News*. There, under the heading “Beauty of the Day” was a picture of PII’s receptionist, Mrs. Betty Finley.

She had been selected to fill the daily corner in which the *News* honors attractive Chicago feminine office workers deemed by judges to be worthy of public acclaim.



Miss Roll-O-Graphic at NAPL

The ML staff would like to take this opportunity to say Merry Christmas and Happy New Year to all our friends in all parts of the world. At presstime many beautiful lithographed cards had already reached our desk.





Model: Claudia Rhodes

2-COLOR PROCESS *by offset or letterpress*

When customers cannot wait for 4-color plates and production, the modernized 2-color process may save the situation. This insert is an example of what can economically be produced at top speed by 2-color process on a fine coated paper such as Cantine's Zenagloss.

This insert is printed by offset in two colors on Cantine's Zenagloss Offset Coated 25x38-80 (160M), 2-color photograph and process separations by Pictura, New York

The Martin Cantine Company, Saugerties, N. Y.
Specialists in Coated Papers since 1888.

Cantine's **ZENAGLOSS OFFSET COATED**



2-COLOR PROCESS *widens the color printing market*

2-color process printing has proved commercially practical for both offset and letterpress. It is not a substitute for 4-color work when a close match of intricate color copy is demanded. But with Cantine's Coated Papers, it gives remarkable multicolor effects — and at a saving of time and money. It widens the market for color printing of quality.

This insert produced by offset in two colors on Cantine's Zenagloss Coated Offset 25x38—80 (160M). Dual-color separations made by Pictura, New York City, from full-color transparency furnished by Pan American World Airways System. (Scene in the French Riviera). 23x29 A.T.F. Big Chief Press. Inks by General Printing Ink Co.

Cantine's Coated Papers

For extra colors, an Esoput Tint is recommended. Ask your paper merchant for samples, or write: The Martin Cantine Company, Saugerties, N. Y., specialists in Coated Papers since 1888.

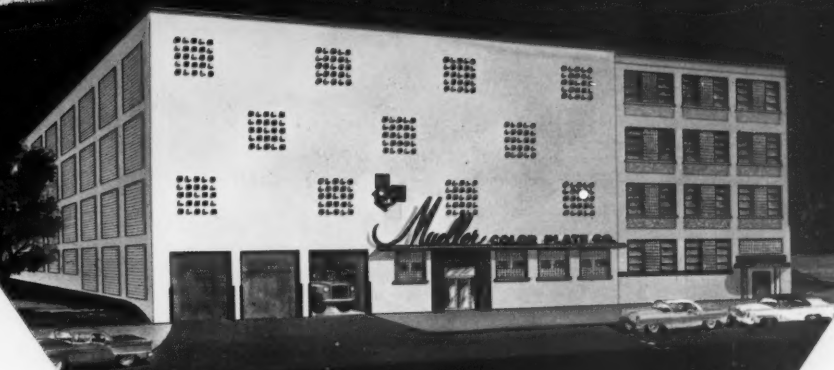
separations
and
positives

photo composed
press plates
up to 77"

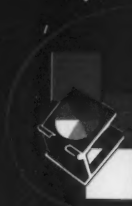
power
press proofing
29"-36"-59"

a complete lithographic
reproduction service

in our new
addition



highest quality litho and
rotogravure reproductions



Mueller

COLOR PLATE CO.

2320 N. 11th St., Milwaukee, Wis.

consult your directory for exact listings.

sales offices and plants: **chicago, ill. milwaukee, wis.** new york, n. y. atlanta, ga. detroit, mich.
battle creek, mich. denver, colo. alhambra, calif.

20 cameras
ranging in
size from
20" x 24"
to this 60"
giant

Over 50
highly skilled
retouchers
and
dot etchers

Complete
stripping
facilities
including
exact
register
systems

8 Photo
Composing
machines
capable of
plates to 77"

Full
power press
proofing —
29" — 36"
and up to 59"
equipment —
14 presses
in all

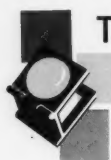


to better
Serve
Lithographers

EVERYWHERE...

Mueller has embarked on an
extensive expansion program —

The building shown on the reverse
side of this insert, comprises over
85,000 square feet of floor space and
is complemented with a staff of over
250 highly skilled craftsmen.

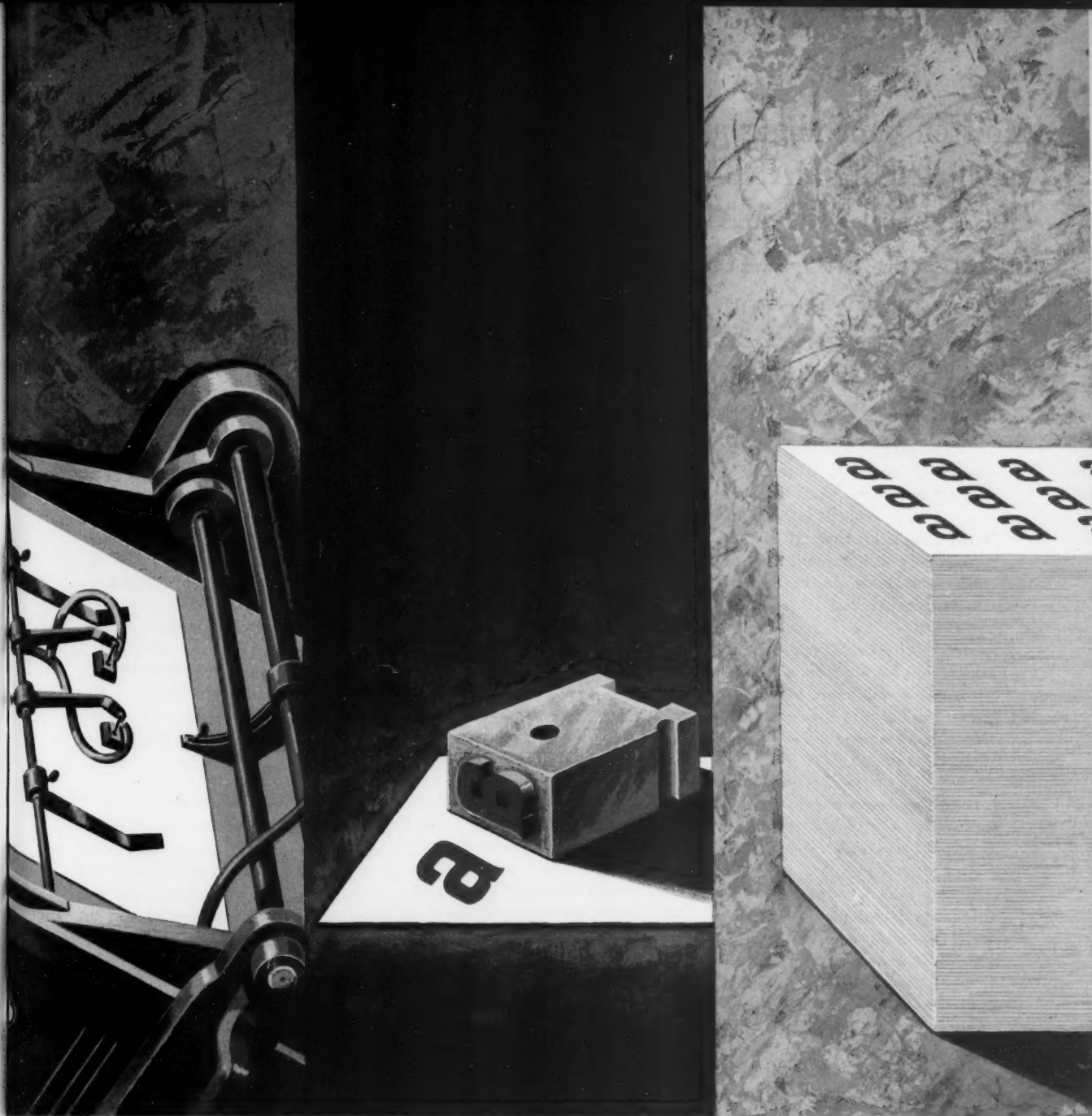


This is the "Symbol of Quality" rec-
ognized by lithographers from
Coast to Coast.

Consult any of these sales
offices and plants for your color plate
requirements.

**SALES OFFICES
AND PLANTS**

MILWAUKEE, WISCONSIN • CHICAGO, ILLINOIS
DETROIT, MICHIGAN • NEW YORK, NEW YORK
BATTLE CREEK, MICHIGAN • DENVER, COLORADO
ATLANTA, GEORGIA • ALHAMBRA, CALIFORNIA



FLAT AS IT FEEDS... FLAT AS IT PRINTS... FLAT AS IT DELIVERS

Revolutionary *SUSPENSION GRIP SURFACE* keeps new **TRO-MARK®** Gummed Paper Flat as a board... printed or stored! Tro-Mark is an entirely new type of adhesive label paper. The secret of its remarkable success is the unique way in which the adhesive is applied to the paper. Unlike the usual continuous gum coat, Tro-Mark's *SUSPENSION GRIP SURFACE* is made up of millions of tiny adhesive particles which are "floated" in suspension onto the surface of the paper. These microscopic beads have room to breathe—

to absorb and release moisture as the humidity rises and falls—thereby *eliminating* curling.

This means you can store Tro-Mark papers (or finished labels) just as you would ungummed stock—without danger of in-storage spoilage. And because Tro-Mark stays "flat as a board" even during multiple press runs, you get more perfect sheets per hour—a saving of paper, time and money.

Now turn this sheet over and prove for yourself Tro-Mark's revolutionary new adhesive surface.

The Gummed Products Company

Division of St. Regis Paper Company • Troy, Ohio

THIS INSERT IS PRINTED ON TROJAN TRO-MARK #866 COATED. "TRO-MARK" LICENSED UNDER PATENT #2793906



Moisten your finger and touch here . . .



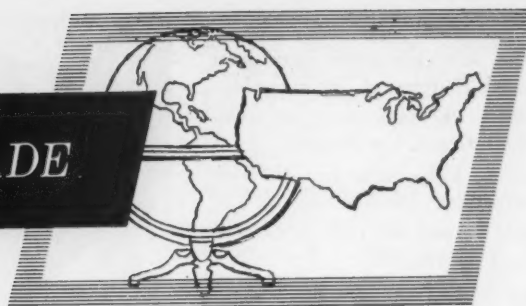
see how TRO-MARK's SUSPENSION GRIP SURFACE takes hold!

Get the full TRO-MARK story.

Order free TRO-MARK sample sheets from your distributor.

Once you try it—you'll buy it!

NEWS about the TRADE



American Litho. Buys Stewart-Simmons

AMERICAN Lithographing and Printing Co., Des Moines, Iowa, has purchased the physical assets and name of the Stewart-Simmons Company of Waterloo, Ia. According to J. B. Hill, president of American Lithographing, the purchase will make American Lithographing and Printing Co. the largest printer and lithographer in Iowa.

This is the second major expansion move by American Lithographing in three years. In 1957 the business and equipment of Iowa Lithographing Co.

of Des Moines were taken over.

Construction of a new \$250,000 plant for American Lithographing and Printing Co. was started recently at 2405 Bell Ave. It is to be ready for occupancy next spring. The company's present building at 607 Third St. is to be torn down because the location is part of an urban renewal project in Des Moines.

Stewart-Simmons Co. headed by Kirk Stewart, president and founder of the company, is over 50 years old.

Wm. Feather Co. Buys O. Firm

William Feather Co., headquartered in Cleveland, Ohio has purchased Layden-Hammell Co. of Salem, Ohio. William Feather, Jr., president of the Cleveland company, reveals the purchase price was \$200,000. The Salem firm has an annual sales volume of \$250,000.

Layden-Hammell will be operated as a completely separate and independent unit, with William E. Enyart as manager. Mr. Enyart has been a member of the Feather organization for the past five years.

Amer. Prtr., Ruhman Merge

American Printers and Lithographers, Inc., Chicago and Ruhman Press, Franklin Park, Ill. announced the merger of their two firms during November.

The new firm will operate under the American Printers and Lithographers name.

The Ruhman press had been an exclusively offset house, while Amer-

ican was a combination plant. Both letterpress and offset will now be available through both facilities.

Blue Ridge Buys Hill City

Stockholders of the Blue Ridge Lithograph Corp., Lynchburg, Va., have purchased the Hill City Press of the same city, from Gilbert R. Haile, owner and manager.

John D. Reichard, secretary of the Blue Ridge Lithograph Corp., said the newly purchased firm will be operated separately from the Blue Ridge firm. He added that the firm will operate under the name of Hill City Press, Inc.

Robert P. Shirey, formerly a pressman with Blue Ridge will be manager of Hill City Press, Inc.

Blue Ridge specializes in lithographic printing of pamphlets and brochures, in black and white and color, and Hill City prints letterheads, stationery, business forms, tickets and other similar material by letterpress.

Mr. Reichard, who did not disclose the sum paid for the printing business

said there will be no connection between the two firms, with the exception of the stockholders, who will be the same for both businesses.

Mr. Haile, a former Lynchburg newspaper man, established the Hill City Press in 1948.

Daniel H. Reichard is president of the Blue Ridge Lithographic Corp.; W. T. Reichard, Jr., vice-president; and Joseph A. DeVito, treasurer.

Offset Paper Goes Daily

The *Warren Observer*, which began as a weekly newsletter in December, 1948, expanded to a full-size tabloid weekly in 1952, became a semi-weekly in October, 1959, and a morning daily as of Nov. 14.

Editor of the Pennsylvania paper is W. Robert Walsh, who is co-owner with Duane E. Wilder and Robert O. Wilder.

A new three-unit Goss Suburban web-offset press has been installed in the modern offset plant which was built in 1952 and to which several additions have been made.

Mr. Walsh began experimenting with offset when he published his newsletter on a Multilith in 1948. This Multilith is still in use as one of the offset presses that comprise the company's job printing division, which is being continued.

The *Observer* believes it is the first offset daily in Pennsylvania.

Jerome Weinstein

Jerome Weinstein, 63, senior vice president of Georgian Press and Georgian Lithographers, Inc., New York, died Nov. 21 at Lenox Hill Hospital in New York.

Mr. Weinstein had been with International Press, which affiliated with Georgian two years ago, since 1917.

Incorporations

The following firms have been granted charters of incorporation:

Kistler Lithograph Co., Inc., 650 South Grand, Los Angeles.

Pasadena Lithographer Inc., 210 West Seventh St., Los Angeles.

Arnold Vezzani, Co., Inc., 531 Cowper St., Palo Alto, Cal.

Western Check Co., 405 Montgomery St., San Francisco.

Graphic Reproduction, 68 Post St., San Francisco.

Conklin Litho, Inc., 822 San Diego Trust and Savings Bldg., San Diego, Cal.

Spokane Lithographing Co., Inc., 1724 Cedar St., Spokane, Wash.

Washington/Alaska Graphic Arts Industries Inc., 5 West Harrison St., Seattle, Wash.

The Typo-Lith Corp., 55 Church St., Albany, N. Y.

The Platemakers, Inc., 207 West 25th St., New York.

Graphic Ruling, Inc., 209 Broadway, Massapequa Park, N. Y.

Greenleigh Press Inc., 545 Fifth Ave., New York.

Lyle Addresses Scott Meeting



A featured speaker at a recent sales meeting of Scott Paper Co.'s Hollingsworth & Whitney Division was Paul Lyle (left), executive vice president of Western Printing & Lithographing Co. Mr. Lyle, shown with G. Willing Pepper, vice president of Scott's Industrial Products Group, discussed modern lithographic developments and requirements of offset printing papers. The meeting was held in Absecon, N.J.

Hart Buys Art Print

Robert Hart, printing sales executive has purchased the Art Print Shop, 77 St. Paul St., Rochester, from Albert P. Gerling and Lewis J. Swierlein, who are retiring.

Mr. Hart, in 1935, joined the old Leo Hart Co., founded by his father.

After the merger forming Smith-Hart Printing Co. in 1955, he served on the sales staff until early this year when he joined the DuBois Press, Rochester.

Mueller Expands in Chicago

Mueller Color Plate Co., Milwaukee, has moved its Chicago plant to new and large quarters at 1056 West Van Buren St. The new plant has an area of 12,000 square feet and houses complete facilities for black and white and color reproduction and platemaking.

Manager of the new plant is Jerome Stern and William Scharmer, Jr. is sales representative.

Anderson Buys Lithoplate

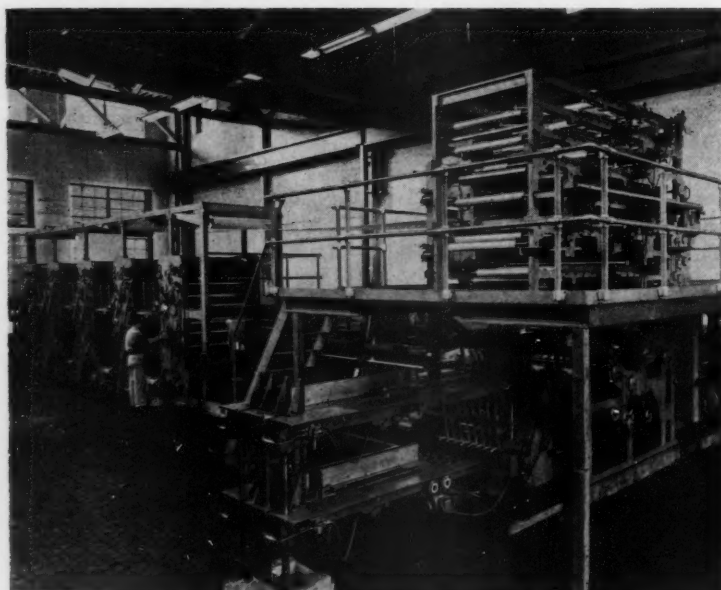
John A. Anderson, former vice president and production manager of Lithoplate, Inc., Portland, Ore., purchased the entire capital stock of the company on Nov. 15. He will continue to operate the business under the same name.

The company is now specializing in trade service, including camera work, stripping and platemaking.

Offices are located at 1532 S. W. Jefferson St.

ATF Shows New Web-Offset Publication Press

New ATF web-offset perfecting press, destined for Standard Publishing Co. plant, Cincinnati, was shown at special press reception in Paterson, N. J., last month. Press prints 1,200 fpm, 35 x 50". Special features include a special device for alignment of cylinder to bring non-perfect plate into register and infinite ink fountain control.



PIA Course at Western Reserve

Western Reserve University, Cleveland, has been selected as the site for a two weeks Executive Development Course, next summer, under the sponsorship of Printing Industry of America. Arrangements for the intensified course are now being completed, and formal announcement of the exact dates and details of the program is expected soon. Participants will live on the campus and follow a college-level curriculum.

Gelb Creditors Meeting

The attorney for Joseph Gelb Co., Newark, N. J., called a meeting of the company's creditors Nov. 29, at the offices of the New Jersey Association of Credit Executives.

At the meeting the attorney presented a report on the financial condition of the graphic arts equipment supply business.

Quality of Self-Advertising Praised



Top award winners in the PIA Self-Advertising Awards competition are: (front l. to r.) Harry T. Gardner, William G. Johnston Co.; William Hirsch, Drake Press; Robert C. Tucker, Sr., Interstate Printing Co.; Charles L. Conlan, PIA, who accepted for Hogan-Kaus Lithograph Co.; (rear l. to r.) R. S. Reinert, The Warner P. Simpson Co.; Herbert L. Borden, The Hub Offset Co.; Fred W. Hofferth, A. H. Pugh Printing Co. and Lithocolor Inc.; and Frank A. Sheriff, The Sheriffs/Advertising-Lithographing Co.

HIGH praise for the quality of this year's entries in the PIA Self-Advertising Awards competition was given last month by the board of judges, headed by George A. Lohr. (See November issue, page 95, for a news story on winners in the contest.)

The judges found that "there is an ever increasing trend toward a more serious, straight-forward approach, with fewer gimmicks. There are some very clever gimmicks which you will see and at least two which have far more than usual pertinent appeal . . . Thinking seems to be directed toward finding new ways to approach the sales message . . . It might be noted . . . that the size of plant has very little to do with the high quality of the entries."

The competition is co-sponsored by the Miller Printing Machinery Co., Pittsburgh. A special Miller awards dinner is an annual feature of PIA conventions. This year it was held in conjunction with the PIA convention in Washington.

As usual, the awards were made for both individual and campaign

mailings. Within these groups, prizes (three \$1,000 awards to campaign winners and nine Benjamin Franklin Statuettes) were awarded for small (1-19 employees), medium (20-99) and large (more than 100) plants. Award Winners were:

INDIVIDUAL—Small: Cape & Co., Ltd., Toronto; Globe Color Press, Inc., Oklahoma City; Thompson Printing Co., Clifton, N. J.

Medium: The Fox Press, Inc., Hartford; Frye & Smith, Ltd., San Diego; Wm. J. Keller Inc., Buffalo; North Central Publishing Co., St. Paul; West Toronto Printing House, Ltd., Toronto.

Large: Herbeck & Held Printing Co., Pittsburgh; Moore Business Forms, Inc., Niagara Falls; E. F. Schmidt Co., Milwaukee.

CAMPAIGN—Small: Bay State Press Corp., Boston; Interstate Printing Co., Houston.

Medium: Leonard Charles and Associates, Inc., Los Angeles; Sequoia Press, Kalamazoo, Mich.; Sleepack Printing Co., Belwood, Ill.

Large: Daniels Printing Co., Boston; Rapid Blue Print Co., Lithographic Div., Los Angeles; Recorder-Sunset Press, San Francisco.

The winning exhibits were on view at the Sheraton-Park Hotel during the convention. It will be available

to local graphic arts groups throughout the coming year. Interested groups should contact PIA or Miller Printing Machinery Co.★

Western Publishing Elects Two

Western Publishing Co., Inc., has elected J. W. Cavanaugh and A. R. Leventhal to the company's board of directors.

Mr. Cavanaugh is a member of the firm of McDermott, Will & Emery, Chicago, and vice president, counsel and director of Kable Printing Co. Mr. Leventhal is president and director of Western's wholly-owned subsidiary, Artists and Writers Press, Inc., and president and director of Golden Press, Inc., a 50 percent owned affiliate.

At the same time Western Publishing announced that its operating division, Western Printing and Lithographing Company, has had its board of directors augmented by four new members—A. R. Leventhal, W. A. Naleid, C. W. DeWitt and R. Small.

Western Publishing, whose common stock was offered publicly for the first time in August, had sales of over \$91 million in the first nine months of this year. The company's affiliate, Golden Press, Inc., is a major publisher of children's books.

O'Donnell Joins Howard Co.

Lorence O'Donnell has joined the Howard Co. of Peoria, Ill., as plant superintendent.

Mr. O'Donnell has 16 years experience in the graphic arts, in addition to studies at technical trade schools, LTF, PIA and the Armed Services.

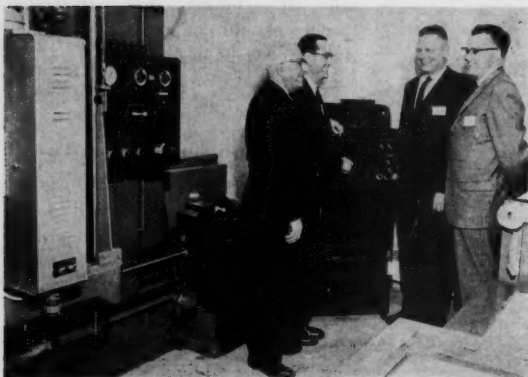
The Howard Co. recently completed \$350,000 building and modernization program.

Ludlow Elects Second Pres.

Frederick Secord, Chicago attorney and chairman of the board of Ludlow Typograph Co., Chicago, was elected president of the company at a meeting of the board of directors on Nov. 21.

Mr. Secord succeeds Arthur H. Hedley, who died Nov. 14.

Give Photo-Composer to Chicago Litho Institute



SUN Chemical Corporation recently gave a fully automatic photo-composing machine to the Chicago Lithographic Institute.

The presentation was made by Michael Annick, vice president and general manager of Sun's Rutherford Machinery Division, East Rutherford, N. J., in the presence of prominent lithographic industry leaders, officials of the Amalgamated Lithographers of America and officials of Sun Chemical.

"The lithographic printing industry is on the threshold of substantial new growth," Mr. Annick said. "The in-

dustry stands to gain an increasing share of the market for printed materials. The industry will realize its opportunities because it will stay ahead of demands with a plentiful supply of skilled manpower and an increasing use of automatic machinery to obtain maximum production."

Mr. Annick praised the work of The Chicago Lithographic Institute, which since its establishment in 1946 has trained hundreds of students from all over the world to keep abreast of the latest developments and techniques in lithography including the latest automated devices.

At the presentation of the photo-composing machine to CLI are: (l. to r.) Michael Annick, of Rutherford, Norman Alexander, president, Sun Chemical, Harry F. Spohnholtz, ALA Local 4 and James Martin, CLI.

Simmons-Woodward Name V-P

William A. Kindorf, Sr., has been appointed vice president and general manager of Simmons-Woodward, Inc., it was announced last month by Paul C. Simmons, Jr., president of the St. Louis printing firm. Simmons-Woodard is a subsidiary of Universal Match Corporation.

Since June 1, Kindorf has been vice president and factory manager and comes to his new position with 40 years of printing experience. He was president of Interstate Printing Company when it was acquired by Universal in May of this year and merged into the Simmons-Woodward operation.

In announcing the promotion, Mr. Simmons said, "Mr. Kindorf will have complete charge of all phases of purchasing, inventory control, manufacturing and labor relations." He is also a member of the Man-

agement Committee, charged with the responsibility of coordinating manufacturing, sales and accounting.

Offset Plate Graining Moves

Offset Plate Graining Co., Cincinnati, which has been located for six years, at 3011 Massachusetts Ave., has been forced, by the construction of a new expressway in that city, to move to a new location. The company's new address is 2147 Spring Grove Ave.

Wins Award for Printed Pieces

Commercial Letter, Inc., St. Louis, received a national award from the Peninsular Paper Co., Ypsilanti, Mich., for two direct mail pieces, produced offset on Economy Cover. The award for "graphic arts superiority" was given for the two-piece direct mailers created by Aaron Fadem, account executive at Com-

mercial, for Newstead Beauty Shops. Fadem used his own image on one of the mailers.

Haynes Litho Advances Frampton

William Frampton has been named sales manager of Haynes Lithograph Company, Rockville, Md. He moves up from the post of sales manager of Haynes' Philadelphia office, where he has headquartered for the past three years.

A graduate of the University of Virginia, Mr. Frampton is married and has two children. During World War II he attained the rank of lieutenant in the United States Navy. A resident of Rydal, a suburb of Philadelphia, Frampton and his family will soon be transferring to the Washington, D. C., area.

Allyn Named Dayton Pres.

Charles S. Allyn, supervisor of the National Cash Register Co.'s supply manufacturing division, was elected president of the Dayton chapter, Printing Industry Association, during its recent annual meeting in the Van Cleve hotel.

Mr. Allyn succeeds E. Bartlett Brooks.

John W. Storms was elected vice president and Robert J. Kampe, treasurer.

Re-elected as directors were George E. Sheer, John N. Taylor, Robert A. Wolfe, Kenneth P. Morse, Ed Keck, George J. Burger, Frank F. Pfeiffer, Fred G. Rost and Jacob F. Worner, Jr.

Augustines Address Cin. GAA

Mr. and Mrs. Lee Augustine were guest speakers at the annual meeting of the Graphic Arts Association of Cincinnati December 6 at the Cincinnati Club.

Mr. Augustine, president of Printing Machinery Company, accompanied by his wife, recently concluded a lengthy visit to Soviet Russia. He reported to members of the Graphic Arts Association of Cincinnati on Russian printing plants and their output, comparing them with graphic arts plants and products elsewhere around the world.



4-color offset reproduction from a transparency by Paul W. Cloud



Lithographic Papers

LUSTERKOTE
OFFSET ENAMEL
CAMEO BRILLIANT
OVERPRINT LABEL
FOTOLITH ENAMEL
CASCO ENAMEL
PRINTONE LITHO
SILKOTE OFFSET

This paper is Warren's Lusterkote Enamel • Basis 25 x 38 - 100 (200M)

PAPER MERCHANTS

who sell and endorse
Warren's Standard Printing Papers

ALBANY, N. Y.	Hudson Valley Paper Company
ALLENTOWN, PA.	Lehigh Valley Paper Corporation
ATLANTA, GA.	Sloan Paper Company
BALTIMORE, MD.	{ The Barton, Duer & Koch Paper Co.
BIRMINGHAM, ALA.	Stanford Paper Company
BOISE, IDAHO	Sloan Paper Company
BOSTON, MASS.	Zellerbach Paper Company
BUFFALO, N. Y.	{ Carter Rice Storrs & Bement Inc.
CHAMPAIGN, ILL.	{ The Century Paper Co., Inc.
CHARLOTTE, N. C.	{ Lindenmeyr Paper Company, Inc.
CHATTANOOGA, TENN.	{ The Alling & Cory Company
CHICAGO, ILL.	{ Franklin-Cowan Paper Company
CINCINNATI, OHIO	{ Crescent Paper Company
CLEVELAND, OHIO	{ Caskie Paper Company, Inc.
COLUMBUS, OHIO	{ Virginia Paper Company
CONCORD, N. H.	{ Southern Paper Company
DALLAS, TEXAS	{ Sloan Paper Company
DAYTON, OHIO	{ Chicago Paper Company
DENVER, COLO.	{ McIntosh Paper Company
DES MOINES, IOWA	{ Carpenter Paper Company
DETROIT, MICH.	{ The Diem & Wing Paper Company
EUGENE, ORE.	{ The Petrequin Paper Company
FORT WORTH, TEXAS	{ The Alling & Cory Company
FRESNO, CAL.	{ The Cincinnati Cordage & Paper Co.
GRAND RAPIDS, MICH.	{ C. M. Rice Paper Company
GREAT FALLS, MONT.	{ Olmsted-Kirk Company
HARRISBURG, PA.	{ The Diem & Wing Paper Company
HARTFORD, CONN.	{ Carpenter Paper Company
HOUSTON, TEXAS	{ Western Newspaper Union
INDIANAPOLIS, IND.	{ Newhouse Paper Company
JACKSON, MISS.	{ Seaman-Patrick Paper Company
JACKSONVILLE, FLA.	{ Choep-Stevens Paper Company
KANSAS CITY, MO.	{ Zellerbach Paper Company
KNOXVILLE, TENN.	{ Olmsted-Kirk Company
LANSING, MICH.	{ Zellerbach Paper Company
LITTLE ROCK, ARK.	{ Olmsted-Kirk Company
LOS ANGELES, CAL.	{ Zellerbach Paper Company
LOUISVILLE, KY.	{ Louisville Paper & Mfg. Co., Inc.
LYNCHBURG, VA.	{ Caskie Paper Company, Inc.
MEMPHIS, TENN.	{ Southland Paper Company
MILWAUKEE, WIS.	{ Nackie Paper Company
MINNEAPOLIS, MINN.	{ The John Leslie Paper Company
MONTGOMERY, ALA.	{ Newhouse Paper Company
NASHVILLE, TENN.	{ Weaver Paper Company
NEWARK, N. J.	{ Clements Paper Company
NEW HAVEN, CONN.	{ Henry Lindenmeyr & Sons
NEW ORLEANS, LA.	{ Central Paper Company
NEW YORK CITY	{ Carter Rice Storrs & Bement Inc.
OAKLAND, CAL.	{ Henry Lindenmeyr & Sons
OKLAHOMA CITY, OKLA.	{ Alco Paper Company, Inc.
OMAHA, NEB.	{ Henry Lindenmeyr & Sons
PHILADELPHIA, PA.	{ The Alling & Cory Company
PHOENIX, ARIZ.	{ Miller & Wright Paper Co.
PITTSBURGH, PA.	{ Linde-Lathrop Paper Company, Inc.
PORTLAND, MAINE	{ The Canfield Paper Company
PORTLAND, ORE.	{ Marquardt & Company, Inc.
PROVIDENCE, R. I.	{ Schlosser Paper Corporation
RENO, NEV.	{ Zellerbach Paper Company
RICHMOND, VA.	{ Western Newspaper Union
ROCHESTER, N. Y.	{ Field Paper Company
SACRAMENTO, CAL.	{ D. L. Ward Company
ST. LOUIS, MO.	{ The J. L. N. Smythe Company
ST. PAUL, MINN.	{ Schuykill Paper Company
SALT LAKE CITY, UTAH	{ Zellerbach Paper Company
SAN ANTONIO, TEXAS	{ The Alling & Cory Company
SAN DIEGO, CAL.	{ C. M. Rice Paper Company
SAN FRANCISCO, CAL.	{ Zellerbach Paper Company
SAN JOSE, CAL.	{ Zellerbach Paper Company
SEATTLE, WASH.	{ Narragansett Paper Co., Inc.
SHREVEPORT, LA.	{ Carter Rice Storrs & Bement Inc.
SPOKANE, WASH.	{ Zellerbach Paper Company
SPRINGFIELD, MASS.	{ Beacon Paper Company
STOCKTON, CAL.	{ The Alling & Cory Company
SYRACUSE, N. Y.	{ Zellerbach Paper Company
TACOMA, WASH.	{ The Commerce Paper Company
TOLEDO, OHIO	{ Troy Paper Corporation
TROY, N. Y.	{ Tulsa Paper Company
TULSA, OKLA.	{ Olmsted-Kirk Company
WACO, TEXAS	{ Stanford Paper Company
WASHINGTON, D. C.	{ Virginia Paper Company
WICHITA, KAN.	{ Western Newspaper Union

EXPORT AND FOREIGN

TORONTO, CANADA	Buntin Reid Paper Co., Ltd.
NEW YORK CITY (Export)	Moller & Rothe, Inc.
20 countries in Latin America:	West Indies, Philippine Islands, Hong Kong, South Africa.
NEW YORK CITY (Export)	Muller and Phipps (Asia) Ltd.
Belgian Congo, Hong Kong, Philippine Islands, South Africa.	
AUSTRALIA	B. J. Ball Limited
NEW ZEALAND	B. J. Ball (N. Z.), Ltd.
HAWAIIAN ISLANDS	Honolulu Paper Company, Ltd.



Photo by Louis C. Williams

WARREN'S Distinctive Lithographic Papers

Warren's Lusterkote provides a mirror-like glossy surface that contributes brilliance to the highlights and colors in lithographic reproduction. The Lusterkote surface is also ideal for the printing of high-gloss inks and metallic inks. The Lusterkote grades are LUSTERKOTE ENAMEL, LUSTERKOTE COVER and COVER-BRISTOL, and LUSTERCARD.

LUSTERKOTE ENAMEL has the high finish on both sides of the sheet and is suitable for use in booklets and brochures of distinctive quality. Lusterkote Cover and Cover-Bristol may be had with the high finish on one side only or on both sides. The 1-side quality has a fully-coated back suitable for halftone printing. Lusterkote Cover and Cover-Bristol fill the need for a distinctive

paper for covers, inserts, folders, menus, post cards and other requirements where a quality appearance is essential.

Warren's OFFSET ENAMEL is a double coated paper for the printing of pictures by offset lithography. Double coating improves printability and uniformity, resulting in a higher potential of lithographic reproduction. Offset Enamel is available in gloss finish, dull finish, Saxony finish and Falmouth finish.

Warren's CAMEO BRILLIANT is a double-coated paper of exceptional brightness — suitable for de luxe reproduction of halftones by offset or letterpress. Cameo Brilliant is available in both dull and gloss finishes, also in Saxony finish and Falmouth finish.

Write for free booklet — "How Will It Print by Offset"

S. D. WARREN COMPANY • BOSTON 1, MASS.

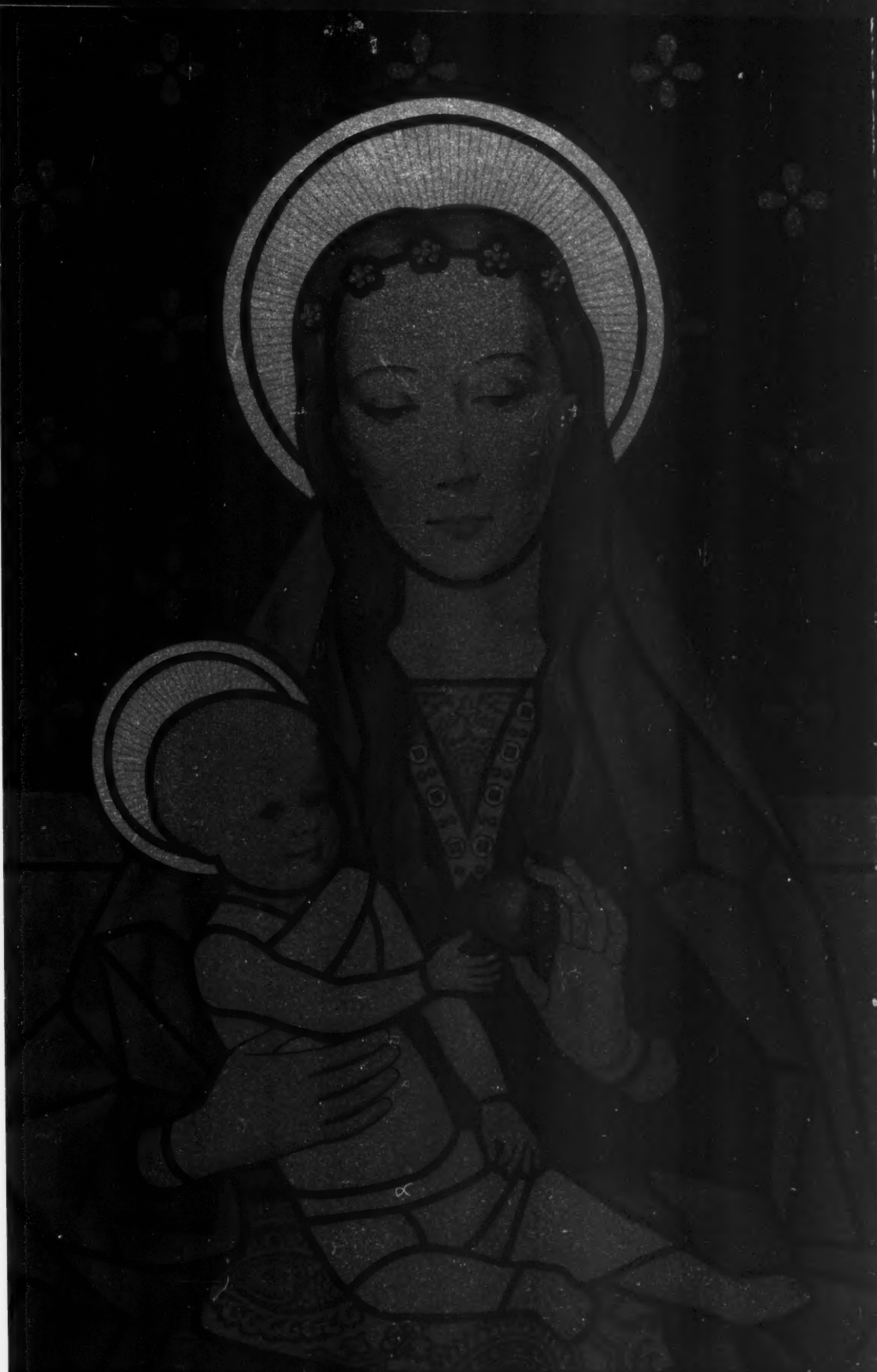
[BETTER PAPER  BETTER PRINTING]
Printing Papers

ms

s,
re

le
es
ng
y,
o-
is
x-

a
al
o-
r-
in
x-

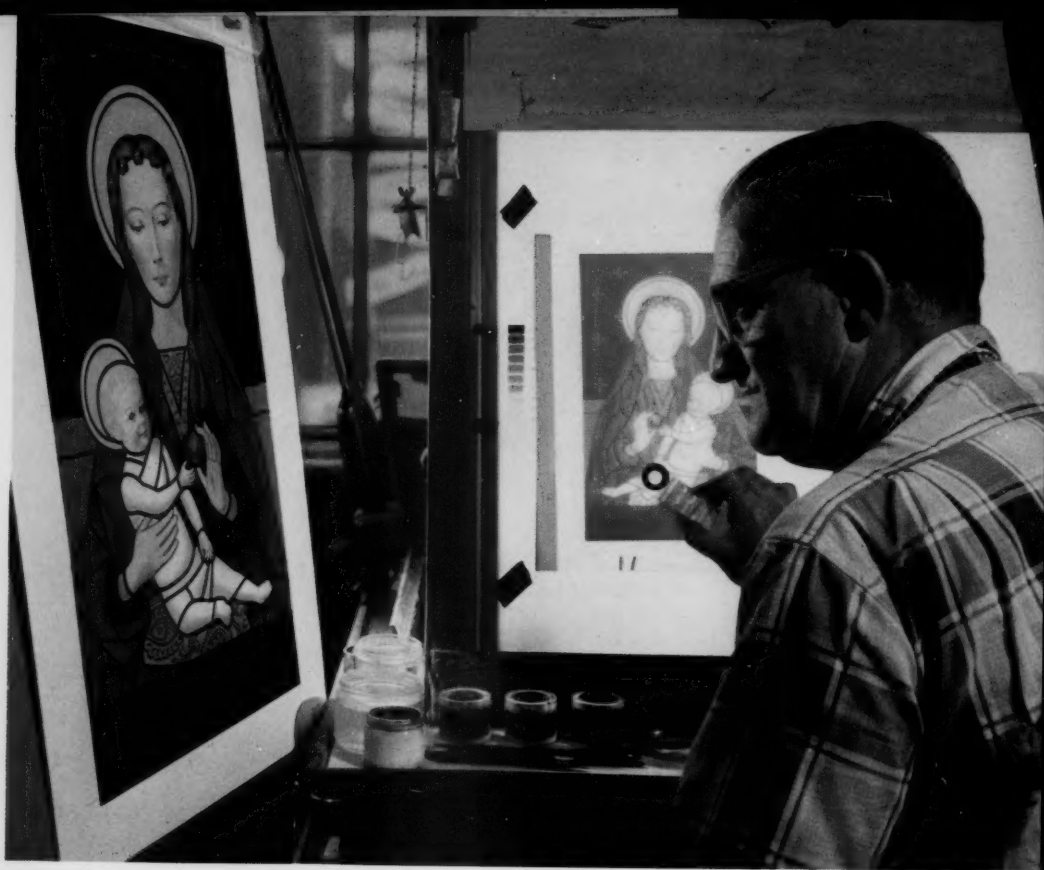


PEACE ON EARTH



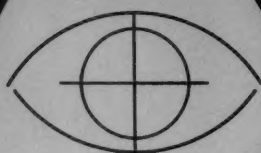
GOOD WILL





TOWARD MEN






The members and officers
of the Amalgamated Lithographers of America
extend to you their cordial wishes
for a Merry Christmas and A Happy New Year.



AMALGAMATED LITHOGRAPHERS OF AMERICA

Kenneth J. Brown, International President • 233 W. 49th St., New York 19, N. Y.

Edward Swayduck, President • Local 1 • 113 University Place, New York 3, N. Y.

Stained glass interpretation of a 15th-century painting, lithographed on foil by union craftsmen of the Amalgamated Lithographers of America, Local 1. 
Photography: Robert Emmett Smallman • Lithographic Platework: Daniel Murphy Co. • Lithographic Presswork: Eastern Colortype Corp. • Design: Robert Hallock



REPRODUCED IN 4 COLORS BY OFFSET LITHOGRAPHY ON CHAMPLAIN COATED OFFSET, 25 X 38—BASIS 80—500. PRINTED 18 UP AT 4000 LPH.

**This is International Paper's
Champlain® Coated Offset**

(it gives brilliant reproduction for volume lithographic work) **TURN PAGE** ➡



Season's Greetings

What you should know about CHAMPLAIN COATED OFFSET

—newest member of International Paper's leading family of fine papers

THE PAPER you hold in your hand is not an expensive enamel. It is totally new *Champlain Coated Offset*. Its low cost makes it ideal for profitable volume work on closely figured jobs.

New Champlain Coated Offset is a high-finish paper. It is coated by a precision engineered formula that provides a level, uniform surface. A smooth print-

ing surface that gives improved definition.

This press-worthy paper has a high bulk vs. weight ratio, a high degree of opacity, quick drying properties and fine folding qualities that also make it ideal for economical volume offset printing. It is excellent for resort folders, seed catalogs, house organs, inserts, envelope stuffers, mailing pieces—any job where qual-

ity and low cost are important factors.

Ask your paper merchant for samples of new Champlain Coated Offset and its companion paper, new Saratoga Coated Book for letterpress.

Your paper merchant will also be glad to give you information about the other printing grades in International Paper's *leading family of fine papers*.



INTERNATIONAL PAPER

FINE PAPER DIVISION • NEW YORK 17, N. Y.

NYEPA to Honor CIA Head

ALLEN W. DULLES, director of the Central Intelligence Agency, will receive the Franklin Award of the New York Employing Printers Association and address the annual Printing Week Dinner on Monday, Jan. 16, in the Hotel Commodore, New York.

Mr. Dulles, who has been asked to continue in office by president-elect Kennedy, has served in government posts under every president since Woodrow Wilson. As head of the CIA, often called America's first line of defense, he is the principal adviser to the president on matters of intelligence related to the national security.

Presentation of the award to Mr. Dulles will highlight a week of special printing events in New York, including the 19th Exhibition of Printing which will be sponsored by the NYEPA January 16-18 in the Commodore.

Participants in the Printing Week Dinner will include Louis Van Hamswyk (Lou Van Typographers), presi-

dent of the Club of Printing House Craftsmen of New York; Donald B. Thrush (Westport Litho, Inc.), chair-



Allen W. Dulles

man of the NYEPA, who will present the Award; and William H. Walling (Publishers Printing-Rogers Kellogg Corp.), who will be toastmaster.

Among the previous recipients of the award were president Dwight D. Eisenhower and former president Harry S. Truman.

TAPPI Panel to Discuss Inks

A panel discussion on printing inks will be an important feature of the 46th annual meeting of the Technical Association of the Pulp and Paper Industry, to be held Feb. 20-23, 1961 at the Commodore Hotel, New York. The panel will include experts on offset ink, letterpress ink, gravure and flexographic ink.

Speaker on offset ink will be Victor J. Porth, Jr., of the Printing Ink Division of Interchemical Corp., New York. Specific suggestions will be advanced on how the "ink-paper relationship" can be improved. A question and answer period will follow the general discussion.

Baldus Joins U.S.P.&L.

Lawrence Baldus has joined the United States Printing & Lithograph Division of National Diamond Corp. as a special representative for brewery packaging materials. With headquarters in the Chicago sales office,

his area includes Milwaukee, Detroit and Minneapolis.

Mr. Baldus has had 15 years' experience in the area of brewery materials control, and he is a director and formerly president of the American Materials Handling Society.

Cincinnati GAA Opens Season

Seasonal monthly meetings of the production management and sales sections of the Graphic Arts Association of Cincinnati were resumed during October at the Cincinnati Club. At the meeting Dr. Freeman F. Suagee, head of the economics department, University of Cincinnati, spoke on "Trends in Employee-Employer Relations," and Dr. Kenneth Wilson, dean of the College of Business Administration at the university spoke on "Let's Talk About the Salesman."

In his discussion, Dr. Suagee reviewed the development of collective bargaining, the effect of the Wagner Act on industrial relations and the

current trends in union-management relations.

Declaring that today's salesman is in a position of leadership and responsibility, Dean Wilson said that salesmen's prime motivation should be that of service to others, adding that "he should recognize that the very foundation of his success comes from the satisfaction of a job well done."

The meeting of the production management section on Nov. 9 was addressed by Attorney John Evans of Cincinnati, on the subject of "Rights of Management under the Landrum-Griffin Bill."

Lincoln Elects Four VP's

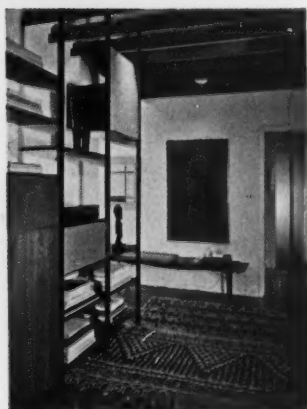
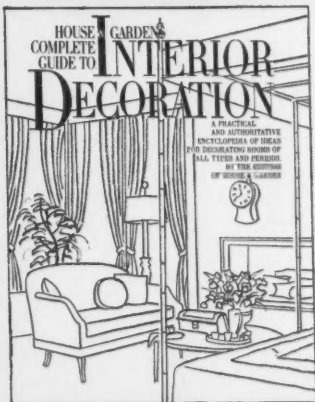
Lincoln Printing Co., which operates extensive lithographing facilities in Chicago and elsewhere, has elected four new vice presidents: Harold T. Andrews, Ben Lazard, Thomas A. Rayner and Ralph R. Hawkins. Mr. Andrews was also named secretary and treasurer.

Acrolite Wins Court Decision

Acrolite Products, Inc., Rahway, N. J., marketer of aerosol products for the graphic arts, last month won a trademark contest with E. I. du Pont de Nemours & Co., Wilmington, Del., in the U.S. District Court in Newark, N. J. The case hinged on the similarity between Du Pont's "Pro-Tek" and Acrolite's "Protect-a-Hand", both hand creams, with Du Pont, the plaintiff, arguing that the Acrolite name was too close to Du Pont's in name and purpose. Acrolite's product is an aerosol foam.

Judge Thomas F. Meaney ruled that "there is no unfair competition by the defendant in the use of the vocable 'Protect' as part of the trade name of its shielding cream." He said that "protect" has "consistently been recognized as a descriptive word, and whatever rights to the designation 'Pro-Tek' were given by its registration, could not be extended to prevent the use of the descriptive word 'Protect' where the word does actually describe the purpose and effect of the product which uses the term on its label."





Beautiful Way to Give a Woman Ideas

The home decoration ideas and dreams of thousands of American women will be influenced by the "Complete Guide to Interior Decoration," compiled by House & Garden magazine.

To assure this end, the color reproductions of furniture, fabrics and materials had to be just about perfect. And they are. The Condé Nast Press wisely chose West Virginia's Sterling Letterpress Enamel for this handsome book. The level, glossy surface of Sterling Letterpress Enamel is ideal for catching minute variations of brightness and shade. Opacity is excellent, and the paper's uniform stability assures good press performance.

Sterling Letterpress and all other members of Westvaco's complete family of fine papers give you unusual quality and economy whatever your printing needs. This is in addition to the benefits of West Virginia's direct sales policy and service, plus the finest technical service available. For full details write to West Virginia Pulp and Paper Company, 230 Park Avenue, New York 17, N. Y., or call one of the offices listed below.

FINE PAPERS DIVISION COMMERCIAL PRINTING PAPER SALES

CHICAGO ■ FR 2-7620 NEW YORK ■ MU 6-8400
CINCINNATI ■ RE 1-6350 PHILADELPHIA ■ LO 8-3680
DETROIT ■ DI 1-5522 PITTSBURGH ■ CO 1-6660
SAN FRANCISCO ■ GA 1-5104

In Baltimore, Cleveland, Los Angeles, Milwaukee, Minneapolis, St. Louis and St. Paul, ask operator for Enterprise Service.

The cover of the "Complete Guide to Interior Decoration" was printed on Sterling Letterpress Enamel 120# basis and the text on 80#. The Condé Nast Press printed the book on two-color Harris sheet-fed presses. Several of the signatures and this insert were printed by Pace Press Inc., N. Y. The 4/c signatures were run on a 71" Cottrell rotary letterpress press. Illustrations © 1960 by The Condé Nast Publications Inc.



West Virginia Pulp and Paper

This insert is printed on Sterling Letterpress Enamel, 25x38-80#.

AZI Research Develops New Zinc Lithographic Plates



Workman applies new one-step ink developer to zinc plate.

THREE new developments in zinc litho platemaking that increase significantly the virtues of zinc alloy sheet for printing purposes were reported by John L. Kimberley, executive vice president of American Zinc Institute as a recent accomplishment of the Institute's expanded research program under the direction of Dr. Sherade F. Radtke.

The following advances have been realized as a result of research conducted by American Zinc Institute's Expanded Research Program in cooperation with American Zinc Products Company, Division of Ball Brothers, Inc.; Illinois Zinc Company, Division of Hydrometals, Inc.; Matthiessen & Hegeler Zinc Company; and LTF.

First, a simple and inexpensive technique for producing an ultra fine grain on zinc litho plates. Second development is a new wipe-on diazo coating for zinc that is practical and easy to apply. The third development is a one-step ink developer that, after photographic exposure of the plate through a negative, develops the image and inks it, desensitizing the non-image areas at the same time.

The research, which continues to be performed at Lithographic Tech-

nical Foundation's Chicago laboratories, is also evaluating a new zinc-copper-titanium alloy which promises to extend the use of zinc plates to the longest runs without creeping or stretching on presses. This advantage is especially significant for multicolor printing where exact register is mandatory.

The graining technique, wipe-on diazo coating, and developing ink procedures are adaptable to either the conventional zinc alloy plates traditionally used in the trade, as well as the new alloy plates.

On With the Show

Undeterred by recent discussions of the question "Are there too many printing trade shows?" the Chicago Craftmen's Club has embarked on a program which calls for a trade show at each of its monthly educational meetings between September and next June.

Announcing the plan, the exhibits committee chairman, John R. Muller, Midland Paper Co., and co-chairman Wm. F. Smith, Sam'l Bingham's Son Mfg. Co., explained to prospective exhibitors that this was an effort to "give your company full opportunity

to exhibit its processes, capabilities and wares to all Chicago Craftsmen."

The show staged each month in corridors adjacent to the Furniture Club dining room where the dinner sessions are held. Space allocations are restricted to Chicago club members and there is no charge to exhibitors for the service. Maximum publicity is offered, including specific mention of the exhibiting company's name in the club bulletin and meeting notices.

At the October show, attended by 200 Chicago printers, the following eight participants displayed the products listed:

Kimberly-Clark Corp., printing and specialty paper; Ipec, Inc., rebuilt offset press running on the floor; Solar Ink Co., latest edition of their color guide for inks; Commercial Typographers, Inc., specimens of typographic art; Goodyear Tire & Rubber Co., offset blankets; Moore Laminating, Inc., uses for laminations in four printing processes; Bellomo Press, specimens of fine printing.

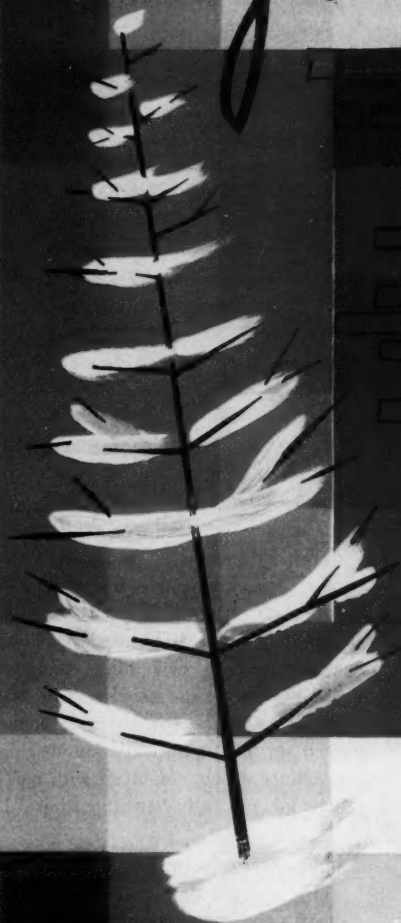
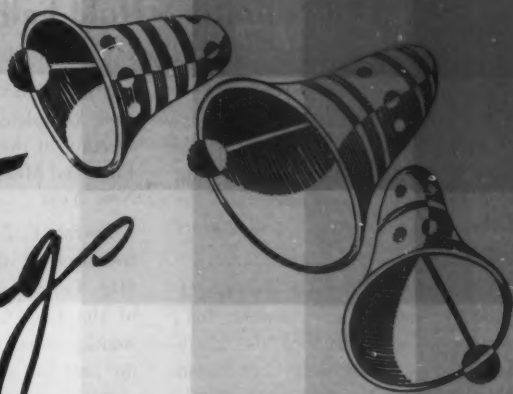
Cleveland Silk Screen Clinic

Printers and lithographers in the greater Cleveland area were recently presented with an opportunity to learn more about the silk screen process. In a two-day clinic at the Sheraton-Cleveland Hotel, the graphic artisans saw practical demonstrations of stencil making, silk-nylon and wire, process board, silk screen equipment and a display of work from leading silk screen producers. C. A. Ziroli, manager of Graphic Arts Finishes, Sherwin-Williams Co., sponsored the show.

Crocker Honors "Old-Timers"

Three employees who have completed 25 years of service with H. S. Crocker Co. Inc., San Francisco lithograph firm, were presented with gold watches by President Richard N. Kauffman during a recent company sales meeting. Edward L. LeVesconte, vice president, Fred Tietjen, credit manager, and Charles Schmid, sales representative, were the three men honored.

Season's
Greetings



Lewis Roberts Inc.

FINE PRINTING AND PRECISION OFFSET INKS

NEWARK, N.J.

LPNA Committees Hold Fall Sessions

A STUDY of the potentialities of the book market and the impact of web offset on current methods of book printing, binding and marketing highlighted the recent meeting of the Lithographic Book Manufacturers Committee, in New York.

The committee, under William H. Bulkeley, Connecticut Printers, Inc., chairman, also reviewed the significance of the recently concluded BMI-Hunt survey in addition to trends of general book sales, of book imports, bindery procedures and improved communications with the paper mills.

Walter Kubilius, editor *Book Production Magazine*, discussed latest developments of web offset in book production. He noted there were no current statistics on web book production, but that of 25 companies surveyed, who have produced some books by web, at least 17 had no previous experience in book manufacturing.

Among the advantages of web offset, Mr. Kubilius contended, are (1) ability to use lower grades of paper, which are considerably cheaper; (2) ability to buy paper in rolls, which is lower priced than sheets; (3) ability to perforate, paste, score and imprint during the press run; (4) ability to run an extra color at low cost.

In discussing the BMI-Hunt report projecting future book sales, which appeared in *Publishers Weekly*, it was predicted that the sale of books would rise to 1,000,200,000 in 1965—or about 27 percent above the 1958-59 average. The 1958 census of Book Printing showed an increase of 36.7 percent; volume going from \$304,894,000 in 1954 to \$447,040,000 in 1958. Lithography's share of book printing showed a 49.8 percent gain from \$116,212,000 in 1954 to \$174, 150,000 in 1958.

Cost, Accounting and Finance

Long-range plans to provide lithographic management with better tools

for more successful plant operation were completed at a recent two-day meeting of the Cost, Accounting and Financial Management Committee, in New York.

Everett F. Bowden, who retired as treasurer of the Forbes Lithograph Mfg. Co., was honored by members of the Cost Committee for his outstanding services as chairman during the past five years.

He was succeeded as committee chairman by Harold E. Rowles, treasurer, Stecher-Traung Lithograph Corp.

The committee, which plans to issue 11 publications on various aspects of financial management within the next few months, reviewed a publication it will soon send to LPNA members, entitled "The Importance of Return on Investments."

Other publications assigned at the meeting were as follows: "Factors to be Considered in Replacement of Equipment"—prepared by Everett F. Bowden; "Efficient Use of Factory Labor Through Adequate Reports"—prepared by Herman Segall; "Determining Profit Contribution by Production Line"—prepared by Harold E. Rowles; "More Effective Control of Estimating"—prepared by Harold E. Rowles; "Distribution of Selling and Administrative Expenses"—prepared by Herbert Brod; and Four papers on Financial Studies which are to be prepared by Robert L. Eger.

At the same time, the committee decided to have Mr. Brown explore "direct costing" and its application to the printing industry.

Various plans for broadening individual group insurance programs to benefit LPNA members were discussed. The committee is investigating the possibilities of a comprehensive policy of Inland Marine coverage. If adopted, it would enable plants to consolidate various kinds of protective policies into one group plan.

The sale of bank checks by the nation's producers rose 12½% dur-

ing the first six months of 1960 compared to the first half of last year, but profits were down 2% during the same period as a result of the increased costs of magnetic ink encoding.

These statistics were revealed during October at the meeting of the LPNA Bank Stationers Section at the Warwick Hotel in New York City. The meeting, led jointly by chairman Edward A. Robinson, The C. J. Hall Co., Pawtucket, R. I., and vice-chairman Cecil N. Rudnick, Rudco Checks, Inc., New York, attracted 133 members, suppliers and trade association representatives.

C. G. Page, IBM marketing, estimated that by 1964 as many as 91% of the nation's leading banks will have checks printed by the common machine language. By the same time 85% of the same banks will start encoding other bank forms.

He also foresaw the day in the near future when smaller banks will band together to precode checks magnetically through central data processing centers. Mr. Page saw no possibility of IBM's newly effected method of optical reading by photo electric cells representing a threat to magnetic ink encoding.

George W. McSweeney, DeLuxe Check Printers, Inc., pointed to the need of setting up a research and education program with the Lithographic Technical Foundation, which would include evaluation seminars and technical classes. He said the bank stationers should explore the need for less conservative numbering machines which, combined with magnetic ink, presently constitute a hazard.

Label Manufacturers

The current status of the label industry, the future economic outlook for label production and sales, trends and developments in sales compensation, current labor problems and the pros and cons of mergers, consolidations and acquisitions, were the key topics tackled at the Fall meeting of the Label Manufacturers Division.

The meeting held at the Edgewater Beach Hotel, Chicago, brought to-

(Continued on Page 107)

CITATION...

Printability

UNLIMITED*



BRIGHT-WHITE
HIGH-GLOSS
FINISH

 **MASTER**

FOLD ENAMEL

**A MULTI-PURPOSE "BLUE RIBBON" SHEET FOR PRODUCING
ECONOMICAL, QUALITY IMPRESSIONS WITH STRIKING RESULTS**

Few enamel papers can boast such printing versatility as Appleton's all-purpose MASTERFOLD. Here's the one sheet that truly serves a dual-purpose, for it prints equally well by letterpress or offset. Either way, the resultant quality is one of true fidelity in process color work, and detail sharpness in 150 line halftones. As its name implies, MASTERFOLD can be folded with or against the grain without tearing, cracking or flaking. You also save considerably on inventory with MASTERFOLD, for this dual-purpose sheet eliminates stocking separate enamel grades to meet both letterpress and offset requirements. Important too, all the "Blue Ribbon" functional assets of MASTERFOLD are yours at a moderate price and well within range of the average top quality job. Better write for test sheets today, for press exploitations of your own.

STRIKING
BACKGROUND FOR
PROCESS PRINTING

*IDEAL
FOR OFFSET OR
LETTERPRESS



**THE APPLETON COATED
PAPER COMPANY**

appleton • wisconsin

**ANNUAL
REPORTS**



**TECHNICAL
BULLETINS**



**PRODUCT
CATALOGS**



BROCHURES



**CATALOG
INSERTS**

Speaking of...
the **PROCESSALL®**...is
done best by those who use it!

PHILIP HANO COMPANY
INCORPORATED

SINCE 1888

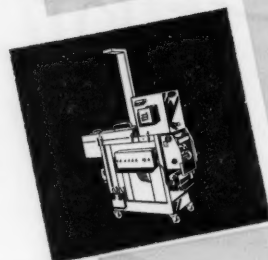
Manufacturers of business forms

MAIN OFFICE AND PLANT
HOLYOKE, MASSACHUSETTS

THE COMPLETE LINE

AUTOGRAPHIC REGISTERS & FORMS
SNAP-A-PART SETS
TABULATING CONTINUOUS FORMS

BRANCH FACTORY
MT. OLIVE, ILL.



August 12, 1960

The Oscar Fisher Company
Newburgh
New York

Gentlemen:

The Oscar Fisher Processall has brought us many advantages:

1. Maximum Quality, which we can obtain because we can predetermine a gray scale step and actually get it because of controlled developer agitation, constant speed, chemical strength, and temperature. This controlled processing cuts opaquing to a minimum, and there is greatly extended developer and hypo life, because of an ingenious replenishing system. Screen work is obtained without streaks or moirée.

Production has been speeded up considerably. Previously after exposing one hundred sheets of film, we had to put them through developer, shortstop, and fixer (handling them a total of 300 times) plus all the washing and drying steps. On the Oscar Fisher Processall none of these individual steps are necessary as the entire processing procedure is done automatically from beginning to end.

Philip Hano Co., Inc.
Holyoke, Massachusetts

Kurt M. Franck
Plant Superintendent

Frank Skwarlo
Head Supervisor
Camera-Plate Room

Harold (Gus) Goodwin
Camera Man



Detailed information on request.

OSCAR FISHER COMPANY, INC.
NEWBURGH, NEW YORK

Hammermill Buys Envelope Co.

Hammermill Paper Co., Erie, Pa., has purchased Coast Envelope Co., Los Angeles, for 122,838 of Hammermill common stock worth \$3,347,335.

Sales of the envelope company last year were reportedly over six million dollars.

Coast Envelope is the third envelope manufacturer to be acquired by the paper company in the last five months. The California company makes a complete line of envelopes at its plants in San Francisco and Los Angeles, and also makes book cover products in its Los Angeles plant.

Chicago YPE Tours Mills

The Illinois Association of Young Printing Executives held a field trip to three paper mills at Appleton, Wis., Dec. 2-3. Under the guidance of Gene Fox of Forrest Paper Co., Chicago, they followed processes for production of coated, rag and bond stocks in the plants of Fox River Paper Co., Appleton Paper Co., and Riverside Paper Co. Another field trip in November took the group to the engraving and electrotyping plant of Pontiac Graphics Co., in Chicago.

Oberly & Newell Move

Oberly & Newell Lithographic Corp. recently rented new quarters in the St. John's Terminal Building, New York. The firm, one of the country's oldest lithographing companies, had been located at 545 Pearl St. for the past 50 years.

Ideal Appoints Dames

Nicholas R. Dames has been appointed a sales representative in the Detroit area for the Ideal Roller and Mfg. Co., Chicago. He replaces George Boyne in that office.

Rauscher Joins Miers

Joseph S. Rauscher has joined Miers Lithographic Service, Allentown, Pa. as plant manager.

Mr. Rauscher, previously with American Colortype Company as assistant to the president and more recently with Lord Baltimore Press, as manager of the preparatory depart-

ment, has been in the graphic arts for 17 years. He is a non-resident member of the New York Litho Club and was formerly a member of its board of governors.

James Gray Appoints VP's

James Gray Inc., New York lithography and direct mail organization, has announced the appointment of



R. Gold



L. Siegel

Robert C. Gold and Louis Siegel as vice presidents. Mr. Gold, a graduate of Carnegie Institute of Technology, will be in charge of general plant operations. Mr. Siegel, who has been with James Gray since 1935, is director of the direct mail division.

Stock Offering Delayed

Graphic Controls Corp., Buffalo, has advised its presently very-limited stockholders that because of lengthy delays encountered in complying with SEC requirements it has decided not

to proceed with a stock offering it had in mind.

The company added, however that, such an offering may be favorably considered in mid-1961. Graphic Controls is a holding company with numerous subsidiaries that make folding cartons, technical charts, business forms, etc. Its sales in the 1959 fiscal year topped \$7,500,000.

Hull Joins Ideal Roller

Hugh Null, formerly a salesman for the White & Wyckoff Paper Co., has joined the Chicago sales division of Ideal Roller & Mfg. Co. in the Illinois-Indiana area. After graduating from Northwestern University he spent the war years with the Signal Corps in the Honolulu area. For the past 10 years he has been employed by the White & Wyckoff Paper Co.

C. R. Becker Joins ATF Sales

Charles R. Becker last month was named as a sales representative for the General Printing Equipment Div. of American Type Founders, working out of ATF's Chicago branch office to cover sections of Illinois and Wisconsin. Mr. Becker was recently co-owner of a plant manufacturing offset plates as well as sales manager of a lithographic shop.

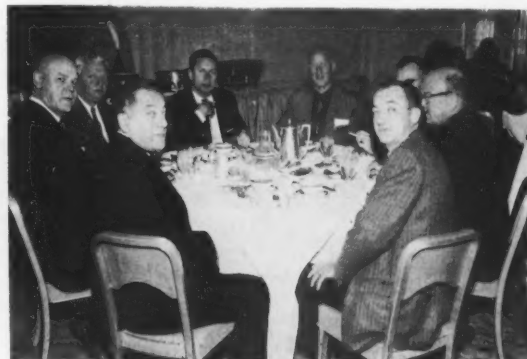
MGD Litho Tour in Chicago During NAPL Meeting

Lithographers attending the recent NAPL Convention in Chicago had an opportunity to tour some of Chicago's outstanding graphic arts plants as the guests of the Miehle, Dexter and Lawson division of Miehle-Goss-Dexter, Inc. Plants visited included: I. S. Berlin, Gregg-Moore, Active Bindery, Aldens Press,

Photopress, and Standard Rate & Data Service. Visitors were invited to select individual tours to see the types of equipment or operations in which they were interested.

The photo shows part of the group at a breakfast session at the Conrad Hilton Hotel, which preceded start of the tour.

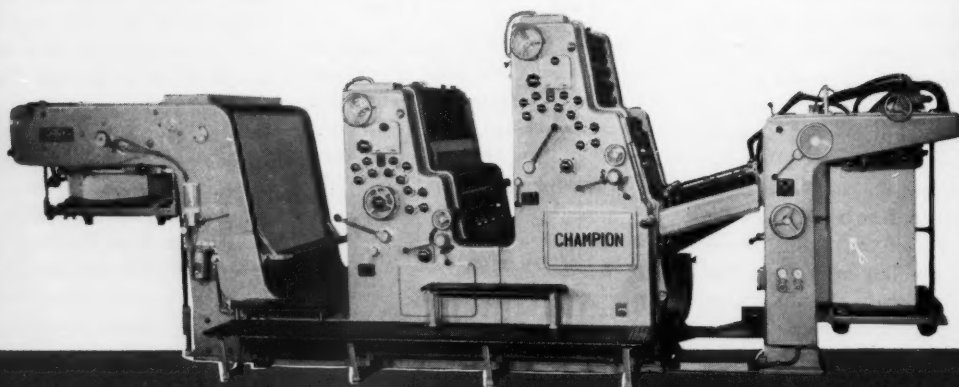
Some of the lithographers who attended the breakfast which preceded the tours of plants in the Chicago area conducted by M-G-D during NAPL convention.



So easy to operate, work's almost a pleasure

CHAMPION!

- controls are outside machine
- lubrication's continuous
- exceptionally quiet—even at 7200 sheets/hr.!



Turning out fine offset work is tough enough without having to battle a balky press, too. That's why you should check the Champion. The more than 100 now in use have proved it's the two-color press built with you in mind . . . the press that lets you concentrate on the job at hand. Consider all you get:

EASY-TC-GET-AT CONTROLS . . . all located conveniently on the side of the Champion. You make all settings and adjustments quickly, simply, without ever having to work "inside." And you can control one or both units from this single station.

PRECISE REGISTRATION . . . you can reposition the "B" unit vertically or horizontally while the machine is running. Massive steel frame and precision-ground

parts also help assure registration second to none.

SPECIALLY-DESIGNED TRANSFER SYSTEM . . . delivers first-quality impressions on long and short runs, thick or thin stocks.

CONTINUOUS LUBRICATION of both feed and machinery drive systems by means of a special recirculating oil system. Keeps downtime, maintenance costs at a minimum. This lubrication, plus precision gearing, makes for an exceptionally quiet-running press.

PRECISE ELECTRONIC FEED CONTROL . . . for example, only the Champion offers you an electronic eye that prevents feeding if sheets are late, early or crooked, and spotlights the trouble. Corrections? Fast and easy.

QUALITY PRINTING AT TOP SPEED . . . up to 7200 sheets/hr., on sheets as large as 26 $\frac{3}{4}$ " x 38 $\frac{1}{2}$ " . . . with precise controls to insure proper inking at any speed on any stock.

MONEY-SAVING VERSATILITY . . . the Champion enables you to handle stocks of varying thicknesses—even board up to 30-point.

OTHER KEY FEATURES . . . stoppable at feed, "A" unit, "B" unit or delivery system. Oversize, 26" cylinder. Streamlined construction.

These are only a few of the Champion features that can make your job easier. For full details on this fine press, and on the prompt service HCM Corporation offers, write today.

Manufactured by **color metal**

Distributed in the U.S. exclusively by:

A world leader in the development
of offset printing presses
Rüsch, Switzerland

80 Varick Street
New York 13, N. Y.

HCM
CORPORATION

General Sales Agent: Consolidated International Equipment Co., New York, N. Y.

Authorized Dealers: East Coast: Ernest Payne Corporation, New York / Philadelphia: Foster Type, Philadelphia, Pa. / Washington: George E. Keller, Inc., Washington, D.C. / West Coast: Graphic Arts Equipment & Supply Company, Los Angeles, San Francisco, Seattle, and Portland.

Entries Invited For 11th LPNA Awards

DURING November 38,000 announcements blanketed lithographic plants and printing users across the country inviting them to enter their most outstanding printed specimens produced during the past years in the 11th Lithographic Awards Competition and Exhibit.

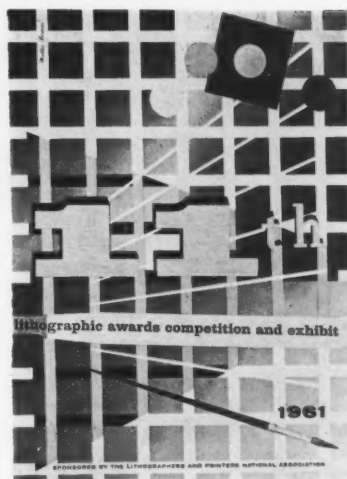
Ralph D. Cole, president, Consolidated Lithographing Corp., has been appointed chairman of the Awards & Exhibit committee. They are charged with selecting advertising, design and production experts from outside the industry to serve as a panel of judges to evaluate and score the entries.

Final deadline for the receipt of entries, which can be submitted in advance of that date, has been set for Jan. 16. Entry fee for LPNA members is \$5.00 and \$10.00 for all others, including non-member plants who are invited to participate. Judging will take place at the New York Trade School during the week of Jan. 23.

Fifty-two classifications of lithography and combinations of lithography and other processes are eligible. These include direct-mail, business reports, point-of-sale displays, posters, car cards, packaging material, bank and commercial stationery, books, magazines and house organs, menus, programs, greeting and pictorial cards, calendars, art prints, maps, decals, metal litho, specialties and novelties and self-advertising material.

Winning specimens will be selected on the basis of three values: quality of reproduction, excellence of art and design, and effectiveness of piece for its intended purpose. Six individual awards of equal merit will be given to winners in each of the 52 classifications for a total of 312 awards. Winning specimens will be published in a 100-page Awards Catalog.

Certificates of Award will be presented to the winners on May 2, at an Awards Dinner at the LPNA Convention, Arizona-Biltmore Hotel in Phoenix, Ariz. Announcement brochures and entry blanks containing



LPNA Awards Announcement

rules and regulations may be obtained from Awards Competition, Lithographers and Printers National Assn., 597 Fifth Ave., New York 17.

William Carmichael, sales manager, Lutz & Sheinkman, who is in charge of conducting the annual promotion, has thanked LPNA member plants for their cooperation in producing the competition material. They include The Crane-Howard Lithograph Co., the envelope; Weber Lithographing Co., the entry blank.

Brown Predicts Job Increase

Kenneth J. Brown, international president of the Amalgamated Lithographers of America, predicted a "substantial increase in the number of jobs in the graphic arts industry despite increased automation" at a recent meeting of lithographic employers and members of ALA Local 11 held at the Rochester Club in Rochester, N.Y.

"Automation itself is responsible for this optimism," said Mr. Brown. He believes that the use of machines will bring production costs down. The price of the product, in turn, will go down. "Increased demand by consumers will result and more men will be needed to turn out the products to meet the demand."

Asked if competition from abroad was affecting the industry, Mr. Brown

said it was a matter of growing concern to the union. Certain color printing processes, made possible through the invention of an electronic color scanning machine, are being carried out in European countries at costs lower than those in the United States, he said. In addition, labor costs are lower in European countries and some American firms are taking advantage of this to the detriment of their own workers by sending orders abroad.

Stecher-Traung Strike Settled

Production at the Stecher-Traung Lithograph Corp. plant in Rochester, N. Y., has returned to normal after a strike settlement.

A company spokesman said the four members of Operating Engineers Local 71, who had been picketing had agreed to the work assignments to which they previously had objected.

These include punching ADT watch clocks, raising and lowering the flag, turning off lights and putting time-cards in racks on weekends and holidays.

The company, in turn, agreed that the four engineers had no authority to enforce company rulings on other employees and that the engineers' duties are not to be construed as "guard" functions, according to engineer business agent Bernard Winterman.

The nomenclature is important, he said, because of National Labor Relations Board rulings that guards are management personnel and thus not eligible for AFL-CIO representation.

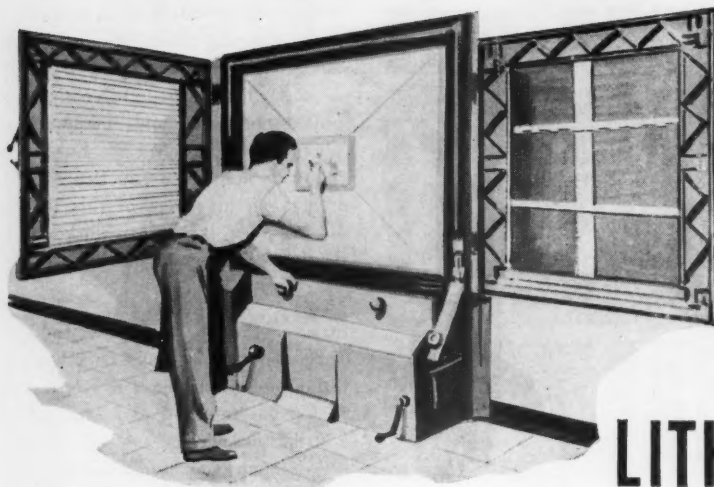
The picketing by the engineers left the plant idle when most members of Lithographers Local 11 declined to cross picket lines.

Bingham's Son Advances Nix

Sam'l Bingham's Son Mfg. Co., Chicago, has appointed John Nix manager of their plant in Atlanta, Ga. Mr. Nix is succeeding John Webb, who is retiring from the company after 40 years of service.

Mr. Nix, who has been with the company a number of years, was formerly service representative in the Florida area.

PITMAN



has
everything
for
the

LITHOGRAPHER

THE FASTEST DELIVERY FROM STRATEGICALLY-LOCATED WAREHOUSES

gives you the assurance of getting
the supplies you need, when and
where you need them.

THE MOST COMPLETE STOCK OF "NAME-BRAND" FILMS, CHEMICALS, METALS AND EQUIPMENT

gives you the widest selection of
top-quality supplies, with purchasing
efficiency and buying economy.

Call your nearest Pitman office and
let a technical representative show
you how Pitman's "one-stop" service
will increase the operating
efficiency of your shop.

THE BEST TRAINED TECHNICAL SALES STAFF, WITH AN AVERAGE OF 19 YEARS' GRAPHIC ARTS EXPERIENCE PER MAN,

keeps you up-to-date on all the latest
developments and helps improve your
production with recommendations
on the installation and use of all
graphic arts equipment and supplies.



HAROLD M. PITMAN COMPANY



Chicago 50, Illinois 33rd Street & 51st Avenue
Secaucus, New Jersey 515 Secaucus Road
New York 36, New York 230 West 41st Street
Cleveland 11, Ohio 3501 West 140th Street
Boston 10, Massachusetts The Pitman Sales Co., 11 Melcher St.

Belew Joins Beckett

David L. Belew has been appointed director of advertising and sales promotion of the Beckett Paper Company,



David L. Belew

Hamilton, Ohio, according to an announcement made by William Beckett, president of the company. Mr. Belew has been associated with the Rowe & Wyman Advertising Agency, Cincinnati, for the past 6½ years; he is vice-president and secretary of that firm. Mr. Belew will direct the advertising for all grades of Beckett papers and will be responsible for sales promotion to Beckett distributors and at the printer-agency-advertiser level.

Mr. Belew assumed his new position with Beckett December 1.

PII Expands Workshops

Printing Industry of Illinois has broadened its series of workshop meetings—usually held in Chicago in the past—to include conferences at locations convenient to printers downstate. First of these was staged at Springfield, on Nov. 17. Two featured speakers were on the program. Arthur L. Johnson, Jr., director of management services of Printing Industry of America, and executive director of P.I.A.'s rotary business forms section, conducted a discussion of "Measuring Your Management Efficiency," in which he was assisted by Harold L. White, recently appointed financial director of the Illinois organization.

Mr. Johnson was in Chicago Nov. 30 for another workshop on rotary business forms problems. Next day, Dec. 1, at a second general meeting, the subjects covered at Springfield were reviewed with Chicago printers, plus a detailed analysis of P.I.A.'s ratio studies, nationally and as applied in metropolitan Chicago.

Future workshops, announced by P.I.A.'s president, Fred Landis, executive vice president of Logan Print-

ing Co., Plover, Ill., will cover conversion processes, Dycril plates, composing room techniques, sales management, estimating, evaluation, selection and training of personnel and web-offset production. All printers are welcome, Mr. Landis stated, regardless of membership in the Illinois association.

Hampson Expands Plant

Hampson Paper Box & Printing Co., division of Pacart (Canada) Ltd., established in Aurora, Ont. 15 months ago, is now increasing its production facilities to 10,000 square feet, representing a 400% increase. New equipment is being installed to increase the variety of products.

The firm specializes in multi-colored cartons and labels.

Hamilton Advances Heise

C. L. Heise has been appointed contract district engineer for the Hamilton Mfg. Co., Two Rivers, Wis. Mr. Heise has been with the company for ten years and has most recently served as director of proposals and contracts.

Correction

Several errors and misspellings in the article "Litho Plates," in the November issue of MODERN LITHOGRAPHY, page 40. It was stated that "the KG and Duralith plates are manufactured by Capitol Regraining Co. and marketed through the Duralith Co."

The sentence should have read: "The Durolith and KG plates are manufactured by Capital Regraining Co." (Durolith is a trade name, and not a marketing company.)

Capital Regraining Co. manufactures and sells the Durolith plates for the litho industry and the smaller KG plates for the small duplicating field. Both are wipe-on aluminum plates. The company is located at 1125 "D" St., NE, Washington 2, D.C.

Ned Gross Joins Interchemical

Ned Gross has joined the Printing Ink Division of Interchemical Corp. at the Cleveland office in charge of



Ned Gross

lithographic supplies. Mr. Gross has had 20 years experience calling on the lithographic trade. William J. Gorie, Jr. is manager of Interchemical's Cleveland office.

Todd Building S.W. Plant

Todd Co., with headquarters in Rochester, is erecting a new \$375,000 printing plant in Dallas which will double production capacity in the Southwest.

Clarkson Named to Civic Post

Max B. E. Clarkson, president of the Graphic Controls Corp., Buffalo, N. Y., has been appointed vice chairman of the Crossroads Area Subcommittee of the Greater Buffalo Development Foundation. George I. Heffernan, president of Baker, Jones, Hausauer, Inc., another printing concern, also has been named a member of the new subcommittee.

Honeck Joins RobPort

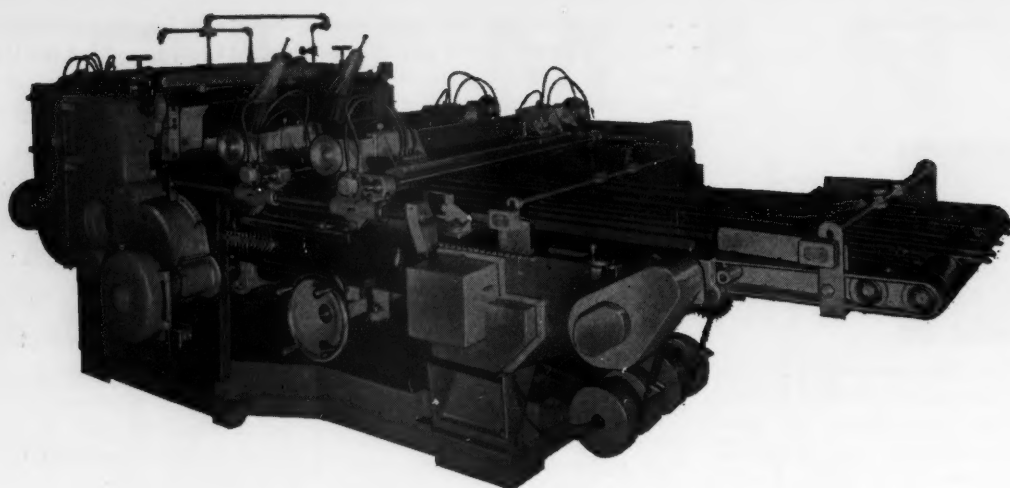
Ralph C. Honeck has been named manager of the Roberts & Porter branch in Cleveland.

He was formerly with Capitol Ink Co., servicing midwestern states.

Dirks Joins Harris

Howard M. Dirks has been made vice president of personnel and corporate relations for Harris-Intertype Corp., Cleveland.

Mr. Dirks has resigned as vice president in charge of the personnel division of Carrier Corp., Syracuse, N. Y., and assumed the newly created post at Harris on Nov. 1. He had been with Carrier for 13 years and before that was director of industrial relations for Perfect Circle Corp., Hagerstown, Ind.



Now—

100 sheets per minute!

Thirty years ago the first Wagner Spot Coater was supplied to the Metal Decorating Industry. Since then, the requirements of the industry have created demands for higher speeds—larger sheets and increased accuracy of register. These demands have been met by the Wagner Model A Lug Type Spot Coater, shown above.

Maximum recommended speed of the Model A is 100 sheets per minute and the maximum sheet size is 42" x 42". The Lug Type Conveyor Table carries the sheets from automatic feeder or rotary press to the coating rolls.

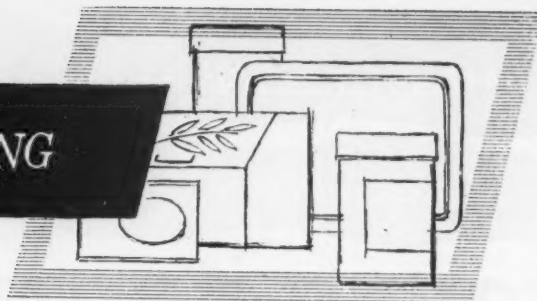
Thus, Wagner has continued to progress with the Metal Decorating Industry. Recommendations concerning the use of the Model A or other units are offered without obligation.

When thinking of Progress—think of Wagner!



**Wagner Litho Machinery Division
NATIONAL-STANDARD COMPANY
Secaucus, N.J.**

METAL DECORATING



Can Finishes and the Food Additives Law

By Einar T. Wulfsberg

Food and Drug Officer
Food and Drug Administration
U.S. Department of Health, Education, and Welfare

BEFORE THE turn of the year representatives of the Can Manufacturers' Institute came in to discuss a solution to the problem of the status of can coatings under the Food Additives Amendment. The objective at that time was to secure an extension of the effective date of the amendment—to buy time. Concurrently they proposed to seek a regulation under the Food Additives Amendment which would, as the law requires, prescribe the conditions under which these coatings could be safely used in packaging food.

Three men, Curt Maier, D. F. Sampson, and Roger Lueck devoted their time toward this end. I can only express admiration for the manner in which they worked under stress to develop the information which we requested. It was their expressed purpose to do what had to be done as an industry effort rather than represent only the interest of their own companies.

Out of this we evolved what has since been dubbed an omnibus petition, or as we call it in the office, a package approach for a regulation. The theory we had in mind was to find a basis upon which the industry could secure a regulation which reflected the intent of the amendment

and at the same time provide a basis upon which the customer could be assured that your products would in no way violate the new law of the Federal Government.

In summary, the effort, in the CMI petition was directed toward creating a regulation which would do these things:

1. *Conform to the procedures established by the amendment.*
2. *Prescribe in one document the conditions which characterized safe coatings for metal cans.*
3. *Provide a means by which the manufacturer could assure his customers of the legality of his products by reference to a published document rather than by reference to the Food and Drug Administration.*

The fact is, that we in Food and Drug Administration have before us a petition proposing that such a regulation be issued. We have not issued the order despite diligent cooperation on the part of the petitioners and equally diligent effort on the part of our people. We are much concerned that it shall issue, because it will set a distinct precedent for what we believe is a desirable course of action. Without making apologies, may I suggest that it is something like going down a country road after a heavy rain. The first car through has to break trail and after that it isn't so bad. Isn't the problem also, the same that you have with a new item—when

do you quit trying to perfect it, freeze the design and get it off the ground, not quite as well done as you would like?

It is important to note that a regulation can be amended to correct error or omission and to keep it up to date with the change in technology. Coatings tomorrow will not be the same as those today. As new substances are introduced into the art it is possible to amend the regulation to provide for their use. This would require a showing that the new substance could be safely used. From the consumer's point of view that is precisely what the amendment was intended to accomplish.

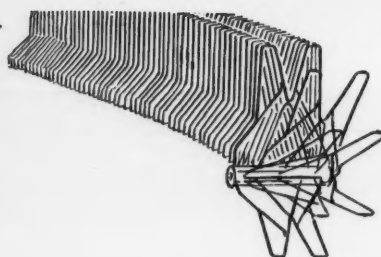
The characteristic of a can enamel which makes it safe is essentially its insolubility in the food to be packed. In order to evaluate the petition, our scientists asked for a laboratory method for determining the solubility of the coating in solvents which simulate food. The industry went to a great deal of work to provide such a method. At the present time two of our district laboratories are testing sample cans by the method. From the information currently available it appears that no problems are being encountered and we hope shortly to be in a position to prepare and issue a regulation.

In trying to determine the relationship of finishes for metal food con-

From a talk given at the National Metal Decorators Assoc. Convention, October 17, Washington, D. C.

better finished products

... maximum efficiency



YOUNG BROTHERS OVENS

for every *Metal Decorating* requirement

YOUNG BROTHERS Metal Decorating Ovens, built in a variety of types, are known for their excellence because Young Brothers engineers have a fundamental understanding of the baking and drying problems of the Metal Decorating Industry. Their "know-how" is based on 60 years of experience building individually designed ovens for all baking and drying processes.

A metal decorating oven is a highly mechanized production unit in a specialized field—and it will only perform to maximum efficiency if it has been built by men thoroughly experienced in every phase of oven engineering.

Through their specialized experience, Young Brothers engineers constantly develop new and better methods of handling, heating, and moving air . . . for faster, more efficient production . . . for more automatic and accurate controls so vital to the synchronized operation of the production lines. New light weight rigid, tubular wickets reduce conveyor load and help to eliminate sheet marking. Reduces necessity for wicket preheating.

You can be sure of the best when you select a Young Brothers Oven because it is the product of the finest experience in the industry—that is why it will bring added profits out of your production.

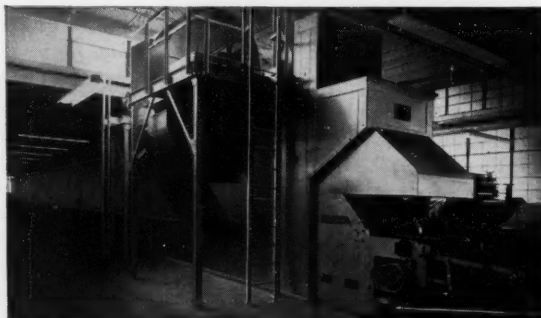
Investigate the advantages of Young Brothers Ovens today—details are available to you without obligation.

YOUNG BROTHERS CO.

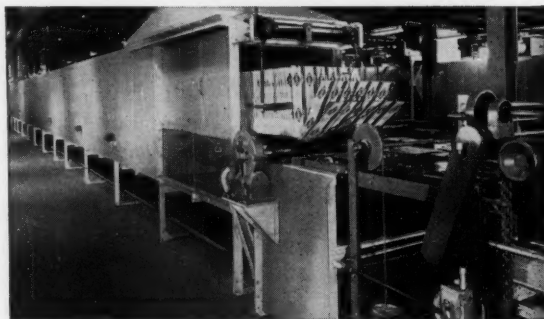
1839 COLUMBUS ROAD CLEVELAND 13, OHIO



Battery of large, high speed D.E.F. Metal Decorating Ovens



High speed, combination D.E.F. and D.I.F. Metal Decorating Oven



D.I.F. Metal Decorating Oven with zone control and recuperative cooling

tainers to the amendment we might take a look at the way the amendment came about. In our way of life the technology of food production as well as food processing equipment and packaging has moved very rapidly in the period since the war.

We have available convenience foods which we like and which our wives especially like. The ubiquitous cake mix on the shelves of every food market in the country is an example. Even a child with a few minutes of work and a half hour of bake time can turn out a cake which would be the envy of her grandmother whose reputation as a cake maker was a local tradition. This is only possible because of certain antioxidants and emulsifiers which have been synthesized by food technologists. Concern that these new substances, with their dramatic usefulness, should be safe led to the preparation and passage of the amendment. At the same time the law brought under scientific scrutiny and for the same reason, safety, the materials used in packaging, holding and transporting food. Here too the technology has made rapid progress and promises to continue on the same course.

No Reason for Concern

In the area of food packaging, as we know it today, there is no apparent reason to be apprehensive concerning the safety of the materials used. Nothing in the history of the amendment indicates that the law included these articles in order to correct an abundance of flagrant abuses. Rather the purpose to be served is that as the technology moves and produces useful new articles they should be shown to be safe before they are made a part of the market. This you are accustomed to doing. The law provides that you must.

It takes but a quick look at the substances used to formulate can coatings to realize that they are not each by each safe as food ingredients. The law, however, provides that they shall be safe under their intended conditions of use. In this case they come out as a new substance, a resistant and very insoluble coating. To quote the deputy commissioner, "We have

emphasized that it is not that which goes into the package, but that which goes into the food that is the concern under the amendment."

In presenting a petition on coatings for metal cans, the petitioners have taken the position that the materials used may safely be used because when put together with the know-how available in the industry the resultant article does not add to food that which is unsafe.

From the information presented as to the amounts and identities that can come out of a well formulated enamel our scientific people are endeavoring to conclude that the named materials may safely be used as constituents. The proviso is that the coating be so formulated and so applied and cured that it is essentially insoluble in solvents which simulate food. That is the reason we asked for a method which would reflect the degree of insolubility which characterizes such a well formulated and carefully applied coating.

Waxes and Lubricants

Metal decorators are concerned about waxes and lubricants used as constituents in the formulas and as adjuvants in the conversion of the coated metal. In this area we may not have all the answers for lack of knowledge as to what and how much is used and what amount remains on the finished article. You are aware that paraffin waxes and mineral oil are under investigation by the American Petroleum Institute. The purpose is to determine what specifications describe those which are safe when they become components of food. We expect some representative of the petroleum industry to propose a regulation establishing wax and mineral oil meeting certain specifications as safe for a catalog of specific uses. There would appear to be no reason why this catalog should not include your uses, considering the fact that you can employ them in a manner that adds but minute amounts to food. A solution at least in part should thus come out of the work of the petroleum industry.

A second subject suggested is sealing compounds and side seam ce-

ments. It is my understanding that these are essential to a perfect closure. The safety of these substances must revolve around one of two circumstances—either that in the manner in which they are used there is no contact with food and they may thereby escape the provisions of the amendment or if exposed to the food they are so insoluble that it is reasonable to conclude that they are safe. This becomes a question for the chemists and pharmacologists to evaluate in terms of the facts that can be presented. If they can conclude that these things are safe as they are now used, it should be possible to reflect the conditions which cause them to be safe in a regulation. The problem also goes back to the statement previously quoted, indicating that our concern is directed to that which may get into food rather than that which goes into the substances themselves.

Concerning the materials that are used for exterior coatings for metal food containers, including the lithography, printing, colors, and labels of all sorts, we have expressed the opinion that because these are not expected to be in contact with the food they are not within the definition "food additive." This is on the theory that there is no reasonable expectation of any part of them becoming a component of food and thus they are exempt from the amendment. In effect, we thus agree that they are safe for their intended use without any necessity for scientific review under the amendment.

Catalog of Ingredients

To try to look into the future at this moment requires the presumption that the regulation proposed by the CMI does issue. As it stands it will
(Continued on Page 111)

Plan Metal Deco Plant

The Marathon Division of American Can Co. has announced plans for construction of a food packaging materials manufacturing plant in Chamberburg, Pa.

The new plant will produce letterpress and lithographic printing in as many as five colors.



In the Land of the Caribou

- The Arctic Argonauts carved a modern fishing and hunting camp, complete with airstrip, out of the wilderness.
- Air transportation, in six hours, brings Twentieth Century sportsmen back into the civilization of early explorers.
- Midnight sun, howling huskies, natives and nature in the raw. Wily Arctic Grayling, surfacing Trout and the ever-present Northern Pike.
- Twenty-five minutes of 16mm. sound and color film outlines the sub-Arctic life and fishing. This film is available at no charge.
- For the last two years *Argosy Magazine* has recommended our lodge as the outstanding fishing spot in Canada. United States Rubber's million dollar fishing vacations contest picked Arctic Lodges as Number One among the world's seven greatest fishing spots!

For complete information write:

*Arctic
Lodges, Ltd.*

3402 University S.E.
Minneapolis 14, Minn.
Phone: FE 8-1583

LITHO CLUB NEWS

Magnetic Printing Investigated by CLC

THE Canadian Litho Club, Ontario Division began its program, October 19th, with a turnout of 20 members and 5 guests, to hear a panel discussion on Magnetic Ink Character

Greco described the Evaluating Centers that his company has set up which printers can use to have their work critically inspected for acceptance. He described the 13 tests which



Panel members at the Canadian Club meeting, holding reproductions of magnetic ink characters are (l. to r.): L. G. Henderson, J. Greco, A. Campbell and J. Mills.

Recognition. Participating in the Toronto program were A. Campbell of the Canadian Bank of Commerce, John Greco of International Business Machines and club member Lyman G. Henderson of Davis & Henderson.

Mr. Campbell briefly reviewed the history of magnetic ink as a means of identifying checks by their bank and transit numbers. To illustrate the need for such a system of speeding up check handling, he called attention to the fact that in the year 1959 for every business day of the year in Canada an average of 2,750,000 checks were handled, on an average of 3 to 12 times each. By the end of 1962, he stated, all the Chartered Banks in Canada will require that all checks be coded with magnetic ink. With new equipment that is being developed this will eventually make possible the use of electronic book-keeping.

Mr. Greco described the equipment which will be used to handle these specially printed checks. He reviewed the close tolerances required by the equipment and illustrated the type of printing faults that can occur. Mr.

a check has to undergo to get a certificate of acceptability.

The third speaker was Lyman G. Henderson of Davis & Henderson Ltd. whose company has spent the past 2 years working on problems found in the printing plant in connection with magnetic ink printing. He described the two methods used for printing with magnetic ink, by letterpress and by offset, and the problems involved with each.

Equipment for imprinting and handling checks was shown and demonstrated. The meeting concluded with a question and answer period.

Detroit

Teasdale Named President

Albert Teasdale was elected president of the Detroit Litho Club at the November meeting of the club. Assisting him during the coming year will be Louis LaFrane, vice president; Harry Harrison, secretary; and Lawrence Hages, treasurer.

Regular members of the board of governors include: Eugene Kosikowski, William Peters, Donal Skauge

and Donald Campbell. Associate member of the board is Richard Fitzpatrick.

Members of the Detroit Litho Club viewed a newly produced film entitled, "How Kodalith Film Is Made," at their November meeting. The film, which shows step by step procedures in the manufacture of Kodak films, was presented by Wendell Bauerman and Sam Hezlep of the company. These two men also moderated a question and answer session which followed the film presentation.

Dayton

Paper Plates in Lithography

William D. Robinson of the S. D. Warren Co., presented a talk at the November meeting of the Dayton Litho Club entitled, "Paper Plates—Their Application to Lithography."

In his talk, Mr. Robinson described the new direct image plate. In addition he demonstrated the negative and positive paper plates. He indicated how the plates can be used effectively in the commercial litho shop.

Chicago

Williams Describes Densichron

The Chicago Litho Club, at its November meeting, featured a talk on the densitometer as used in the litho trade. In the business session new club officers were elected.

C. R. Williams, sales manager of W. M. Welch Mfg. Co.'s "Densichron" division and builder of his company's first densitometer, used slides to show uses and applications of this instrument by lithographers. Customer demand for a more uniform, higher quality product, he pointed out, has led the industry toward instrumentation and automation of its production processes. The densitometer is being increasingly used, especially in new and expanding plants.

At the Chicago Club's October meeting the story of the part commercial research is playing in developing quality products for lithographers was related by Robert B.

The copy below was set at 100 words per minute!

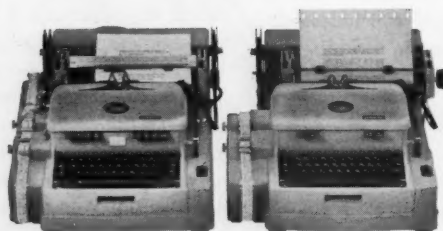
This copy was transcribed by a typist on the recording unit of a Friden Justewriter, thus producing both a first proof and a coded paper tape. The tape was then inserted in the reproducing unit which automatically prepared the repro proof at 100 words per minute, automatically justified and error free.

There is no faster method of preparing straight composition for reproduction.

The net output speed of the Justewriter is limited only by the speed of the typist. If she's a 70-word girl on an office typewriter, that's how fast she can operate the recorder. (There's nothing to slow her down: justification is automatically performed by the machine; errors are corrected by simply pressing one key.) Type faces? Take your pick of fourteen styles from 8 to 14 point.

© 1960 FRIDEN, INC.

These are the machines that did it!



Get full information from your Friden Man. Or write: Friden, Inc., San Leandro, Calif.

 **Friden**

SALES, SERVICE, INSTRUCTION THROUGHOUT U.S. AND WORLD

Kincaid, technical service supervisor of Minnesota Mining & Mfg. Co.'s printing products laboratory.

To insure continued uniformity and establishment of new markets in the graphic arts, Mr. Kincaid said, a large staff of scientists, engineers and craftsmen spend about half of their time in the St. Paul research area working on long range developments. About 15 percent of this long range work is devoted to "blue-sky" projects, he said, adding that to support this type of research 3M invest about 50 percent of its annual earnings.

In detail he described the new Type "L" and Type "S" plates, the new Type "R" developer and the 3M Color Matte Proof as achievements resulting from the continuous research effort to upgrade lithographic printing.

In addition to the continuous research, product development and field testing comments from craftsmen in the graphic arts field, Mr. Kincaid said, play an important part in establishing today's market for new printing products.

The new officers elected in November—too late for listing here now—are to be installed at Dec. 15 Christmas party. Feb. 4, 1961, is the date for the Chicagoans' annual Ladies Night dinner-dance, it was announced.

New club members, recently inducted, include Harold Hansen, Litho Chemical & Supply Co., William Barkley, Times Graphic Co., and John Hancock, Veritone Co.

Young Lithogs

See Mueller Color Film

Mueller Color Plate Co. Milwaukee, presented a film on color separation at the November meeting of the Young Lithographers Association in New York. The film was presented by Vincent R. La Sala, eastern sales manager of the company and his assistant, Roy Nesom.

The film describes each step in color reproduction from artwork to the finished lithographic plate. It also includes a glimpse of rotogravure cylinder making.

Cleveland

Discuss Web-Offset

H. A. Astén, manager of web-offset sales for the Cottrell Co., Westerly, R. I., and Andrew P. Monroe, mid-west regional manager, Hess and Barker, Philadelphia, covered the design of various web-offset presses on the market and the practical application of web-offset in the litho field at the November meeting of the Cleveland Litho Club.

Mr. Astén, who described the number of units available for web-offset, also indicated the relationship of web-fed to sheet-fed units and described drying systems and the terminal operations of rewinding, sheeting, and folding.

Mr. Monroe covered the types of products which can be produced on web-offset presses, indicating trim sizes and formats which are usable. He also described the probabilities of product design as to range of papers and inks and some of the economics involved.

The newly elected officers of the club are Alvin Martin, president, Fred Dippong, first vice president, Chester Wych, second vice president, William Nicholson, secretary, and John Lang, Jr., treasurer.

The Cleveland Craftsmen Club and The Litho Club of Cleveland held their annual joint Christmas party Saturday, Dec. 3. The dinner-dance began at 6, with Jack Pollack and his orchestra providing the dance music. A cocktail party preceded the dinner-dance.

Cincinnati

Two Slates Nominated

Buford Payne, Tri-State Offset, was nominated for president of the Cincinnati Litho Club on both the "white" and "blue" tickets for officers for 1961, at a closed dinner meeting Nov. 8 held in the El Rancho Rankin Motel. Other nominations for officers were: white ticket—Harold Biddle, Standard Publishing, 1st vice president; Joseph Hoffer, Gibson-Perin Co., 2nd vice president; A. J.

Kirst, Aljen Associates, secretary; Glen Menzer, Offset Plate Graining Co., treasurer, and Gordon Wickfeldt, Nielsen Lithographing Co.,; James Macke, Macke Brothers, and Edgar Kobman, Gibson Art co., for three-year terms on the board.

Blue ticket nominees were Ralph Echard, Champion Paper & Fibre Co., 1st vice president; Paul Granger, Metropolitan Printing Co., Inc., 2nd vice president; Robert Crooker, Strathmoore Press, Inc., secretary; Anthony Bianchi, ABC Lithographic Co., treasurer, and for the board: R. W. Fischer, Technicraft Inc.; Lawrence Dougherty, Tri-State Lithographers, Inc., and Joseph Cremering, Steinhäuser, Inc.

Election of the 1961 officers will be held at the regular monthly dinner meeting on Dec. 13 in the Golden Goose Restaurant in nearby Kentucky, after which members will hear a talk on lithographic blankets by a

representative of the McKinley Litho Supply Co., Inc.

Twin City

Investigate Pressroom Problems

The November meeting of the Twin City Litho Club featured a panel discussion of problems in all the phases of pressroom operations. The members of the panel and their topics were: Larry Grunditz, Brown and Bigelow, press sheet layouts and acceptable press speeds; Rex Morgan, Louis F. Dow Co., ink volume control and its advantages; Jerome Higgins, Jensen Printing Co., web-offset printing; Edward Sorenson, H. M. Smyth Co., the importance of preventative maintenance in the pressroom; and James Sherwood, Photomatic, printing on foil.

The panel discussion was followed by a question and answer session.

Miami Valley Litho Association Elects Ostrander

Raymond F. Ostrander of the U. S. Playing Card Co., was elected president of the Miami Valley Lithographers Association, at the recent annual meeting. He succeeds H. C. Brinkman, Cincinnati Lithographing Co.

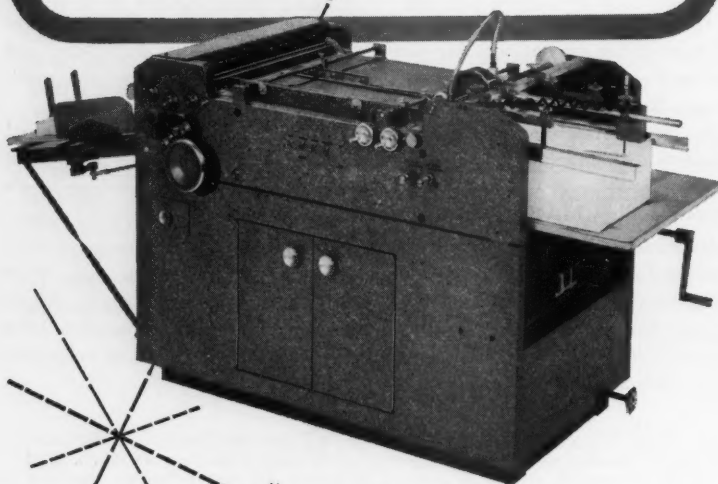
Other new officers are John Hennegan, The Hennegan Co., vice president, and Benjamin F. Klein, Young & Klein, Inc., treasurer. John D. Rockaway continues as managing director.

New officers of the MVLA are (front l. to r.) John Hennegan, vice president, Ray Ostrander, president, Benjamin Klein, treasurer. Members of the board of directors are (rear l. to r.) Andrew Donaldson Jr., Harry E. Brinkman, K. C. Detwiler and John D. Rockaway, executive secretary.



Rosback Jet-20

the most outstanding
AUTOMATIC SLOT PERFORATOR
available today!



Rosback Jet-20
Shipped Completely
Assembled.

New Design Strike Gate
for Accurate Strike Pat-
tern.

Air Wheel Feed for Pos-
itive Feeding of Sheets.

All Grease-Sealed Anti-
Friction Bearings for
many years of Service.

Variable Speed Control.

The NEW ROSBACK JET '20' Slot Rotary Perforator has many firsts in the field. First fully Automatic Small Air Wheel Suction Feed Perforator.

Production Speed on full size 20" sheet up to 12,000 per hour. Up to 20,000 per hour on smaller sheets. Production speed up to 7,000 on Strike Perforating.

Indicator Light will light when pile reaches proper operating level.

All Operator Controls are within easy reach of Operator on one side of Machine. Machine can be placed against wall to save space.

Rosback®

F. P. ROSBACK CO.
Benton Harbor, Michigan

Buffalo

Hear Talk on Subversion

Fred Turner of the *Buffalo Evening News*, spoke on subversion and anti-American activities in an "off the beaten path" presentation at the November meeting of the Buffalo Litho Club.

Mr. Turner, who has been in the newspaper business for 50 years, recounted a number of his experiences in covering stories which involved various types of subversion. In addition he explained the actual or potential effect of such schemes.

The club's annual Christmas party will be held Dec. 10 at the Continental Inn.

St. Louis

Elect New Officers

The St. Louis Litho Club, at its November meeting elected the following officers to serve in 1961: Oscar Augustine, Western Printing & Litho Co., president; Larry Held, Government Chart Plant, vice president; Frank Grob, Academy Litho Co., secretary; and Carl Gerak, Cavanagh Printing Co., treasurer.

Elected to the board of governors were: Ray Eckles, Ross-Gould Co.; Gene Hanson, Ross-Gould Co.; Daniel Neumann, DeWitt, Iowa; Dan Wuest, Western Printing & Litho Co.; and Joseph Renda, Publishers' Printers.

The St. Louis Litho Club will hold its annual Christmas Party as a dinner dance, December 3 at the Ambassador-Kingsway Hotel.

Susquehanna

Job Planning Forum Tried

A new idea in educational forums was tried and reported successful at the November meeting of the Susquehanna Litho Club. Instead of the standard panel discussion on production problems, the meeting featured a job planning panel, which traced the production of an imaginary job from conception to completion.

On the panel which "produced" the job were: Benjamin Clerico, modera-

tor, Elmer Bare, sales, production and bindery, Peter Foley, art and preparation, Fred Husson, photography, John Hershey, stripping and plates, and Richard Early, press and ink.

Using an advertising brochure and catalog, which was on hand, as the theoretical "job" to be produced, the panel members, each in his turn discussed problems and solutions involved in each step of the process.

The overall discussion was followed by a question and answer session.

The next meeting of the club will be held Dec. 15 in Lancaster.

Kansas City

Receive Member Pins

Rae Goss, president of the National Association of Litho Clubs, distributed membership pins to 121 members of the Kansas City Litho Club, who attended the recent "charter night" meeting of the club.

Special silver membership pins were presented to Herve Surrey, of Roberts & Porter, Inc., and Albert Lilja, Art Litho-Craft Co., for their work in getting the local club started.

Benjamin Ernst, Midland Lithographing Co., and Otto Fenske, Mid-Western Litho Plate Co., were named members of the board of governors.

Philadelphia

Corcoran Covers Color

Frank D. Corcoran, pressroom superintendent, Haynes Lithograph Corp., Rockville, Md., discussed high volume color work at the October meeting of the Philadelphia Litho Club.

In his talk, Mr. Corcoran emphasized the importance of color sequence and trapping. He explained that there is no hard and fast rule for sequence and that it is difficult to standardize on a particular procedure, because conditions vary widely.

Howard N. King, spoke on the "Impact of Photo-Composition," at the November meeting of the club. Mr. King pointed out that a great number of people still do not as yet understand the present and future



Russell Johnson, (L.) president of Philadelphia club, presents Frank Corcoran a certificate of appreciation.

importance of newly developed methods of photo-composition.

A proper knowledge of these systems and their value to the lithographic industry is vitally important, he said, for those who intend to continue to grow with the industry.

New members of the club are George H. Lemberger, Lithographic Mfg. Corp., and Vicent De Marco, De Marco Business Forms Co., Inc.

New York

Study Densichron and Photo-Ray

C. R. Williams, sales manager of the Densichron division of the W. M.

Welch Mfg. Co., who built the first Densichron model, demonstrated and discussed the latest Densichron and its accessories, at the November meeting of the New York Litho Club.

Harold Clarke, vice president in charge of sales for Reproduction Engineering Corp. spoke on the Photo-Ray printer, which is used for fast printing on contact and enlargement papers in the dark room.

The club's Christmas party in the Hotel Biltmore on Dec. 9, featured entertainment by Billy Sands and Jadin Wong.

Washington

Feature Quality Control

Russ Johnson, president of the Philadelphia Litho Club and assistant superintendent of the printing plant at Du Pont Co., and Donald Macaulay, Rochester Institute of Technology, both of whom are well known as authorities in quality control, addressed the November meeting of the Washington Litho Club.

This meeting of the club was held in the form of a seminar, with both

Boston Investigates Press Techniques

THE November meeting of the Boston Litho Club featured a panel on press problems and practical press operation. Members of the panel were: Willard Greenwood, Forbes Lithograph Mfg. Co., moderator; Anthony Pastore, American Type Founders; Russel Snyder, Harris-Seybold Co.; Charles Borsani, Miehe-Goss-Dexter, Inc.; and Robert Kane, Miller Printing Machinery Co.

Ralph Lein, chairman of the club's educational committee, reported that

an offset stripping course, sponsored by the club, will be held at the Boston Trade School, starting Jan. 9. The course will run for six weeks, meeting two hours every Monday night. Instructors for the course which will be divided into two classes of 25 students each, are Benjamin Kidder, superintendent of stripping for Forbes, and Raymond Faulkner, superintendent of stripping, camera, and platemaking for Buck Printing Company.

Members of panel at BLC meeting are: (front l. to r.) Willard Greenwood, Russell Snyder, Robert Kane, (rear) F. Burt Reed, Charles Borsani, and Anthony Pastore.



men leading the discussions of quality control.

Mr. Johnson, who has spoken to many graphic arts meetings on quality control, outlined the system employed by DU Pont in its printing department. The emphasis in this system is on control through proper sampling and testing of material in production to determine any variance from the set quality standard.

Mr. Macaulay, who is well known for his seminars on quality control at RIT, spoke to the members on the

importance of quality control in the competitive market and the basic principles on which any good control system must be based.

New members of the club are Fred Mawhinney and Charles B. Parks of USIA and Herbert Jacobs, Turnpike Press.

Hennegan Featured in Paper

John Hennegan, president of The Hennegan Co., Cincinnati, O., was the subject of a feature article in a recent

issue of the *Cincinnati Enquirer*. He discussed the firm's many years experience in printing theatrical and motion picture posters and, more recently, super market displays and greeting cards.

Proposes Alumni Books

John Ferguson, Tobey Fine Papers, Inc., St. Louis, won an award in a recent "Imageneering" contest held by the National Paper Trade Association.

Mr. Ferguson suggested promoting more sales of year books by introducing a post-graduate year book which would be issued five, ten, or twenty years after graduation to show what the people look like in later life and tell what they are doing.

Draw 30 To K. C. Course

More than 30 persons are enrolled in the two evening educational classes sponsored by the Printing Industries Association of Kansas City. The ten week course on "Managing Your Business" is being taught by John B. Smith, comptroller with Henry Wurst, Inc.

Install Line-Up Tables

The following firms have installed new Craftsman Line-up Tables during the past month:

Artcraft Litho & Printing Co., New York; Neumann-Rudolph Co., Chicago; Wayside Press, Mendota, Ill.; A. Hoen & Co., Baltimore; National Cash Register Co., Wash. Courthouse, O.; Semco Color Press, Oklahoma City; Colortone Process, Philadelphia; Eureka Specialty Co., Scranton, Pa.; and Meridith Publishing Co., Des Moines, I.

LTF Meeting Schedule

The Lithographic Technical Foundation has announced the following dates for forthcoming meetings:

- March 13, Education Committee meeting
- March 14, Members and directors' meetings
- March 15 and 16, Research Committee meeting.

Obsoletes all other Platemakers!



LOAD
Lift the glass, position the negative and plate.



FLIP
Close the glass frame. Pull the release knob and flip the vacuum frame over.



EXPOSE
Set the timer. Automatically controlled carbon arc lamp is built into the base with the reflector.



PLATE MAKER

Fast—simple—clean—compact. nuArc flip-top platemakers are the modern way to make perfect offset and letterpress plates.

A specially designed carbon arc reflector floods every square inch of printing surface with even light...eliminating undercutting and decreasing exposure time. Live rubber blanket guarantees perfect negative-to-plate contact.

You save with flip-top units in the initial cost (cost 30% less than separate frame and arc lamp units), in the installation (no partitions, curtains or external exhaust systems necessary), and in the operation (easier, faster operation than with conventional units).

**Send for the latest "Flip-top" Bulletin A-500*



COMPANY, INC.
General Office and Factory: 4110 W. Grand Ave. • Chicago 51, Ill.
Sales and Service: New York • Los Angeles



13:18 MODEL FT-18
17:24 MODEL FT-24
21:26 MODEL FT-26
28:32 MODEL FT-32
30:40 MODEL FT-40
43:52 MODEL FT-52

MODELS FT-32, FT-40 AND FT-52 ARE AVAILABLE WITH AUTOMATIC OR MOTOR DRIVEN ARC LAMP.

nuArc makes a complete line... send for literature



FLIP-TOP PLATE MAKERS



LIGHT TABLES



REGISTER & REPEAT LINE-UP TABLES

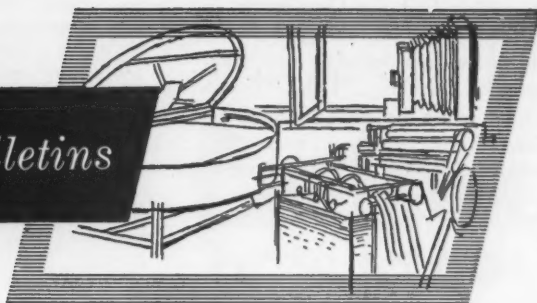


RAPID PRINTERS



ARC LAMPS

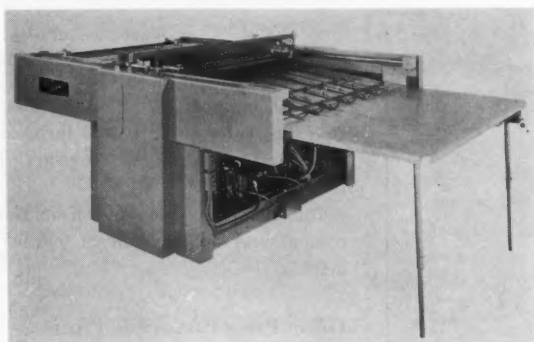
Equipment, Supplies, Bulletins



New High Speed Semi-Automatic Screen Process, Press

GENERAL Research, Inc., Grand Rapids, Mich., last month introduced "Galaxy 44" a new semi-automatic screen process cylinder press.

size frame from minimum to maximum sheet length . . . standard wood frames, Seri-Chase or newly introduced Galaxy masonite stencil chase.



New Galaxy 44, semi-automatic screen process cylinder press introduced by General Research and Supply Co., Grand Rapids, Mich.

Maximum press speed is 1500 impressions per hour, and an automatic mechanical register feature permits feeding at full press speed. Thus the Galaxy 44 is reported to feed as easily at 1500 as other semi-automatics do at 500. The new press handles sheets from 13" x 20" up to 30" x 45" (32" x 45" on most stock), prints any stock from 16 lb. bond to 100 pt. board and corrugated, and uses any ink, resist, adhesive or functional coating formulated for screen process printing . . . including fluorescents, metallics, vinyls, lacquers, assembly and re-moistening glues, heat seal or pressure sensitive adhesives and other functional deposits.

In introducing the new press, Mr. James A. Black, president of General Research said he believes this to be "the answer to the long felt need for a low cost press that could offer the printing quality of the big automatics to shops handling small and medium runs of specialized printing."

The press, he said, can utilize any

Additional features include: fast makeready; replaceable blade type, self-aligning squeegee; and capacity to print multiple colors through split fountain technique.

Gevaert "Graphic Films" Booklet

Gevaert Company of America, New York, is distributing a 12-page booklet which describes Gevaert films for line and halftone photography, as well as films for continuous-tone reproduction. There is also a section on separation panchromatic films. Also included are Autoreversal films and papers, and a brief description of the new Multimask film.

Copies of the booklet may be obtained by addressing the company at 321 West 54th St., New York 19, N. Y.

Introduce New Model Foto-Riter

An improved Foto-Riter Typesetter has been placed on the market by Foto-Graphic Products Co., Minneapolis. The new model sets

type from 14 to 72 point, in more than 50 type styles.

Foto-Graphic Products introduced the first model of the Foto-Riter in 1958 to set headlines at low cost.

Features of the new Model 325 include signal light which flashes red when the unexposed film supply is exhausted; one-second exposure time as compared to three seconds on the other model; easier removal of exposed copy; and improved spacing dial.

Four-Second Master Image

A new master-imaging process which is up to eight times faster and substantially lower in cost than any existing method has been developed by A. B. Dick Company, Chicago.

The new patented method employs a specially developed A. B. Dick master for the fluid duplicating process which can be imaged by conventional heat-transfer office copying equipment in four seconds, according to the company.

Any number of masters can be imaged from each suitable printed, typed, written or drawn original, and up to fifty copies can be produced from each master in no more than 30 seconds with a fluid duplicator including A. B. Dick Azograph.

New Photographic Proving Paper

"Anko-Graphic", a new photographic proving paper for use by lithographers and engravers, has recently been developed by Anken Chemical and Film Corp., Newton, N. J. Features of the new paper include smooth finish and high contrast emulsion characteristics. The manufacturer states that it can be handled under normal room light without danger of fogging.

New Plate Etch for Aluminum

RB&P Chemical & Supply, Inc., Milwaukee, announced a new plate etch for aluminum, which it will market under the name "Skum-Off." This product, a new idea in plate etches, is claimed to do a superior job of cleaning the non-image areas. Plates remain scum free much longer, it is stated, and the possibility of "ink dot scum" is sharply reduced. RBP advise that Skum-Off contains no phosphoric acid and will not strip

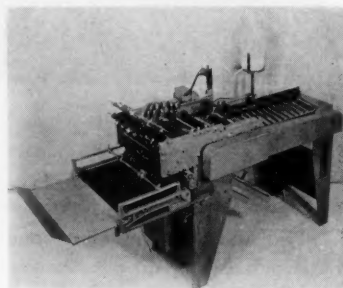
press rollers. Nor does it contain bichromates or other harmful skin irritants. It is said to work on any type of aluminum plate—deep etch, surface, presensitized or wipe-on.

Additional information is available from RB&P Chemical & Supply, Inc., 1640 N. 31st Street, Milwaukee 8, Wis.

Automatic Letter Folder

Russell Ernest Baum, Inc., Philadelphia, has introduced a new letter

folder-sealer-perforator, which is designed for use where security of letter content is necessary. The machine is completely sealed and automatic, so that letters being folded



New folder-sealer-perforator

cannot be seen by anyone except the recipient.

The machine, completely automatic, folds the incoming printed matter, then pastes and seals it. As a final step the folded piece passes through a perforator, which makes it easier to open on receipt.

Information is available from the company at 1540 Wood St., Philadelphia.

Offset Press Perforating Rule

A new perforating rule for offset presses has been added to the line of Foster Manufacturing Co., Philadelphia. Known as "Perfa-Strip" it is designed to permit perforating and printing in one operation on all models of offset presses from 10x14" to 54x76".

There are models in 6 ft. or 20 ft. lengths, for 8, 12, and 16 perforations to the inch designed to perforate either on bond paper or card stock.

Friden Code Converter

Friden, Inc., San Leandro, Cal., is distributing a booklet which summarizes the various features of the Friden Code Converter, a new tape-operated communications machine developed by the company. The Code Converter is designed to integrate data processing when two different tape code systems are used.

Copies of the booklet may be obtained by addressing the Promotion Planning Dept. of Friden, Inc., at 1 Leighton Ave., Rochester 2, N. Y.

150 LINE SCREEN LITHO FOUR-COLOR PROCESS

COLOR POSITIVES

NOTE THESE FEATURES:

- Now used by some of America's finest color printers.
- Screened positives or negatives in 7 working days.
- Progressive color proofs (one week extra required) and color mat proofs available at following extra charges:

SIZE	COLOR PROOFS	COLOR MAT PROOFS
4" x 5"	\$20.00	\$ 5.00
5" x 7"	20.00	5.50
6" x 9"	25.00	6.00
8" x 10"	30.00	7.00
11" x 14"	40.00	8.00
12" x 18"	65.00	9.00
13" x 16"	65.00	9.00
16" x 20"	105.00	14.00

- Our experience includes the making of over 100,000 sets of positives.
- Letterpress negatives also available. Send for special price list.
- Free information on press-room procedures including inks, press and plates.

SEND FOR SAMPLE
COLOR PRINTS

YOU CAN USE **COLOR**
ABUNDANTLY AT
THESE LOW PRICES...

4" x 5" or smaller \$35.00

5" x 7"	\$40.00	11" x 14"	\$55.00
6" x 9"	\$45.00	12" x 18"	\$90.00
8" x 10"	\$50.00	13" x 16"	\$90.00
16" x 20"	\$150.00		

LARGE DISCOUNTS ON VOLUME ORDERS

Best reproductions
are made from 4" x 5"
Ektachrome transparencies

Extra charge for 8" x 10"
transparencies \$15.00

65, 120, 133 and 150
line screens available

WORLD
COLOR INC.

Rte. 303 • West Nyack, N. Y. • Elmwood 8-6400

274 Madison Ave. New York, N. Y. MURRAY HILL 5-9524

Route #1 Ormond Beach, Fla. ORANGE 7-1332

Add Weatherproof Weights

Reigel Paper Corp., New York, has added two new sizes to its weather-proof bristol line. These will be 22 x 28 grain long and 28 x 44 grain long, in both 300M and 600M basis weight (24 x 36).

Add Low Cost Line Film

Supreme Photo Supply Co. has introduced a new film to its line of Supre-Lith film, which is designed especially for line reproduction work. Called Supre-Lith, according to the company, the film has an orthochromatic emulsion of high contrast, with a base which offers high dimensional stability.

Further information is available from the company at 1841 Broadway, New York 23.

Guide to Offset Blankets

The Polychrome Corp., Yonkers, N.Y., has just published a new booklet, titled "A Reference Guide to Offset Blankets", designed to help the lithographer better understand and select an offset blanket for his press. The booklet has sections on Using the Offset Blanket, "Care of the Offset Blanket", "Ink Transfer", "Measuring Offset Blankets", "Packing Offset Blankets", and "Special Uses for Offset Blankets".

For a free copy, readers may write to Polychrome Corp., Yonkers 2, New York.

Step-and-Repeat Accessory

Raden C Auto Step Co. has introduced a new companion board for its master step-and-repeat boards, which is designed for use in multiple negative stepping in shops having no darkroom or other facilities for step-and-repeat. The boards are made of the same plastic material as the masters and are identically calibrated for register. They come in sizes for use with all larger models, 20 1/4 x 24 1/4" to 40 3/4 x 50 3/4".

This equipment reportedly simplifies shop operations in making multiple-burn plates, since no complicated measuring and no punching or tabbing of negatives is required. The negative is masked into the com-



Step-and-repeat board

panion carrier sheets in position for first row of burns, then lifted and pegged (over plate) onto the master board, continuing horizontally for as many burns as are required. The carrier is then returned to companion board and the negative is re-positioned for next row of burns.

Further information is available from the company at 816 Bank St., Kansas City 5, Mo.

Explores Density Dry Down

The latest edition of the DuPont graphic arts bulletin, "The Graphic Arts Register," discusses the loss of density in negatives during drying and some of the methods for limiting this loss.

In addition the paper covers a boost exposure technique designed to improve halftone reproduction; an inexpensive forced air film dryer; and a review of the talk on quality control techniques presented by Russell Johnson of the company's printing plant, at the NAPL convention in November.

New Wausau Sample Booklet

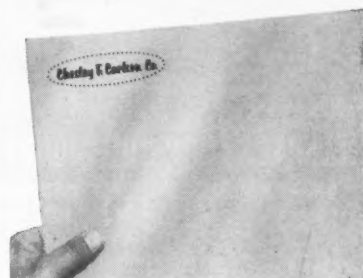
Wausau Papers Mills Co., Brokaw, Wis., recently published a new and revised sample booklet on their line of Wausau text and cover papers. Included are samples of the whites and numerous colors in wove, laid and special finishes.

Copies may be obtained, by writing to the Advertising Department, Wausau Paper Mills Co., Brokaw, Wis.

Ask Carlson how to get and hold Perfect Register



This \$1.35 Carlson stainless steel register pin sent free with answer. Thin base. Will not buckle mask. Ample thumb space. Machined and polished to exactly .250".



This generous sample of Carlson Mask also sent free with answer. Each sheet of Carlson Mask is clearly identified with the Carlson mark of quality.

Ask
Carlson
THE CHESLEY F. CARLSON CO.
2240 Edgewood Avenue
Minneapolis 26, Minnesota

Correction

In the article "How To Get Best Results from Ink," by Paul W. Greubel, of Interchemical Corp., on page 58 of the November ML, the

headings in Figure 2 unfortunately were transposed. The corrected table, as it should have appeared, is printed below:

	No Asphaltum				With Asphaltum			
	100%	20%	4%	0.8%	100%	20%	4%	0.8%
Continuous	1	1	1	1	1	3	6	10
1st Catch-up	3	3	4	4	3	4	5	10
2nd Catch-up	1	1	1	2	1	3	5	10

ascorlux on the job...

PULSED XENON ARC LIGHTING



...saves time and money...gives better results!

...because only ascorlux offers you all these advantages:

- Constant color balance
- Clean operation cuts-down remakes
- Cool operation—less air-conditioning
- Constant intensity for better control of automatic processing
- Instant stop and start—no warm-up
- Highly efficient reflectors
- Shortened exposure time for increased production
- Safe, low pressure operation
- Reduced power consumption
- Improved working conditions
- Minimizes streaks and scratches
- Requires less maintenance—no changing and setting carbons
- Safe, dependable, heavy-duty operation
- Models for every camera and printing operation

Ascorlux A1146 (illustrated)—Double-deck 4-lamp set (1000 watts per lamp) in combination with 2 compact B1144 power supplies. Also, a wide range of camera lamps, printing lamps, light units, and power supplies (300 watt to 3000 watt) to meet most requirements and budgets. Write for complete technical information and prices.

AMERICAN SPEEDLIGHT CORPORATION
63-01 Metropolitan Ave. • Middle Village 79, N.Y.

Obituaries

Beck, Color Pioneer, Dies

Charles W. Beck, Jr., honorary chairman of the board of the Beck Engraving Co., Philadelphia, died Nov. 5 at his home in Wyncote, Pa. He was 82.

In 1914, Mr. Beck developed the first four-color printing process for magazines. He continued to work on the color process and many of the methods used today for four-color plates are the results of his discoveries.

At an early age, he joined the Beck Engraving Co., which had been founded in 1896 by his father, with plants located at 105 S. 7th St. in Philadelphia and 305 E. 45th St., New York City.

Mr. Beck served as president for many years and under his guidance a sales office in Boston was added. Later, he became chairman of the board, retiring from that position in 1953.

John M. Lindsay

John M. Lindsay, 73, co-owner of Lindsay Press Ltd., died Oct. 31 at Greater Niagara General Hospital after a lengthy illness. He had been in the printing industry for 58 years.

Samuel Kay

Samuel Kay, 77, former proprietor of the Strathmore Press in Syracuse, N. Y., died recently after a long illness. He had been a resident of Syracuse 22 years.

C. E. Albert

C. E. Albert, 88, chairman of the board of the United States Playing Card Co., Cincinnati, died in October at Longwood Ranch, in Ohio.

He had been with the company for sixty years, having served as cashier, advertising manager, factory manager, and vice president, before being elected president in 1937. He was elected chairman of the board in 1950.

Mr. Albert was the founder of the Association of American Playing Card Manufacturers.

(Continued on Page 108)

LPNA COMMITTEES

(Continued from Page 84)

gether the nation's leading producers of labels. Nathaniel Gamse, president Gamse Lithographing Co., Baltimore, was elected president of the Label Division, succeeding Charles C. Ros-sotti, chairman of the board, Ros-sotti Lithograph Corp., North Ber-gen, N. J.

Other officers elected were Leo P. Blank, vice-president, Stecher-Traung Lithograph Corp., San Fran-cisco, vice-president; W. S. Martin, executive vice-president, Wheeler-Van Label Co., Grand Rapids, Mich., treasurer; LPNA Executive Director Oscar Whithouse, secretary; and John A. Bresnahan, counsel.

New directors elected were LPNA Director Eric C. Nielsen, president, Nielsen Lithographing Co., Cincin-nati; Raymond J. Kautz, division manager, Allegheny-Fuller Div., Stan-dard Packaging Corp., Pittsburgh, Pa.; and George R. Langlois, pres-ident, Muirson Label Co., Inc., San Jose, Calif.

Retiring president Charles C. Ros-sotti, speaking at the opening session on "The Status of the Label In-dustry," indicated that the pattern of rising labor and production costs continued at an accelerated rate dur-ing the first nine months of this year. He said increased wage rates, ranging from 13¢ to 16¢ per hour, plus in-creases in various fringe benefits, had worked a serious hardship on the pro-ducers of printed products.

LPNA Director of Industrial Rela-tions Boris J. Speroff discussed cur-rent labor problems. On the basis of evidence at hand, he predicted tough-er bargaining times lie ahead, but not necessarily in the lithographic in-dustry. Historically, the union sets the tenor or conditions for bargain-ing, he said, but today some com-panies now feel it is their manage-ment right to establish the bargain-ing climate and present contract proposals.

At the final session, Howard Ny-berg, vice-president, Organization Planning, Bell & Howell Co. and Jack Kromberg, certified public account-

New Executive Committee of PIA



Members of PIA's new executive committee are: (front l. to r.) Max B. E. Clarkson, Frank F. Pfeiffer, Walter F. Mc Ardle, Francis N. Ehrenberg, new president of PIA, Oliver R. Sperry, Mendel Segal, B. J. Taymans, and (rear l. to r.) D. B. Thrush, Robert T. Wolff, Irl J. Korse, George H. Cornelius, Jr., Garnett Landrum, C. L. Conlan, and John D. Rockaway.

ant, New York City, discussed con-solidations and mergers.

Mr. Nyberg said the key to suc-cessful mergers is the ability to rate them as means for acquiring some-thing needed for growth, and also the

ability to plan in order to protect that growth.

The percentage of successful merg-ers in the printing field is far below that of national industry, according to Mr. Kromberg.

WHY
SCRAP
YOUR



ALUMINUM PRESS PLATES?

- We have a process for regaining Surface Aluminum plates made by the conventional whirler process.
- A trial will convince you that you can get many more uses from your Aluminum Plates.
- Would appreciate your inquiry for more information.

St. Louis Plate Graining Co. Inc.

GRAINING AND REGRAINING ZINC AND ALUMINUM PLATES
ALL SIZES NEW PLATES FOR IMMEDIATE DELIVERY

Prospect 6-7122 • 3333 La Salle • ST. LOUIS 4, MO.

Obituaries

(Continued from Page 106)

Arthur H. Hedly

Arthur H. Hedly, 79, president of the Ludlow Typograph Co., Chicago, died Nov. 14 at Chicago Wesley Memorial Hospital.

Mr. Hedly had been with the company since 1910, starting in the engineering department.

Zelda B. Taylor

Zelda B. Taylor, 65, vice president and treasurer of the C. R. Gibson and Co., Norwalk, Conn., lithographers, died Nov. 16 in the Hospital for Joint Diseases in New York.

List Sources on "Dycril" Plates

E. I. du Pont de Nemours & Co., Wilmington, announces that 23 trade shops in 11 Eastern and Midwestern cities are now prepared to process and supply Du Pont's "Dycril" photopolymer printing plates. The plates have been available commercially since January, with the areas in which they are available having been expanded steadily. It is indicated that new territories will be established as production increases.

"Dycril" plates are letterpress printing plates produced by photographic methods. Du Pont is making raw "Dycril" plates in a pilot plant at Parlin, N. J., and is constructing a full-scale plant at Parlin which will

be completed in the second half of 1961.

A list of the trade shops handling "Dycril" plates is available from the Du Pont Company at Wilmington.

WNY-PIA Elects Weyler

Fred P. Weyler, president of Artcraft Engraving Corp., Buffalo, has been elected president of the Printing Industries Association of Western New York.

James A. Bubar, president of Boncraft, Inc., was elected secretary. The treasurership was divided between Albert L. Kolb, manager of the Marine Trust Co.'s printing department and Frank J. Maher, president of The Holling Press, Inc.

FIVE WAYS TO PROFIT

(Continued from Page 44)

thorough knowledge of the capabilities and limitations of our own. In many instances the Golden Rule has worked out. By suggesting a certain order be placed more advantageously with a competitor, we, in turn, have had some beautiful business placed with us through other printers' recommendations.

We feel it is important to earn the respect of competitors and be a constant challenge to them by upgrading our product, our methods and by selling added value. Our men know from experience in the field that where our equipment and craftsmanship fit into the job picture — our prices are most competitive, without cutting into our necessary margin of profit. The wide variation in pricing we see in our industry for the most part is the unfortunate bidding on work which, for one plant is their specialty, and another's cumbersome inefficient ordeal.

Our salesmen bring buyers to our plant at every opportunity so that they may judge for themselves the part we may or may not play in their printing program. Yes, knowing our place in the market is another way of protecting our final net profit.

4. We Study Our Market Potential

Each of our salesmen has assigned to him AAA-rated accounts which have far more volume than we are now selling. Because our sales personnel has an adequate volume potential right where we can put our fingers on it, we confine our selling and advertising efforts largely to the Metropolitan St. Louis area. *Knowing* our market potential and not over-shooting our sales effort, with the accompanying extra travel and advertising expense, is another protector of net profit.

5. We Study and Know Our Costs

Through a nationally-known firm of printing manage-

ment specialists, we operate a budgeted yearly sales projection with budgeted productivity ratios, hourly costs and margins tied in. Each of our salesmen is thoroughly schooled in our cost system and does his own estimating. In fact, each of our men has had at least two years inside training before he sees the street. Each inquiry, or open order, as is often the case, is either bid or yardstick with an estimate, with a side by side comparison of actual costs finally generated in production.

6. We Have To Know the Meaning of Service

Since our business is a tailoring-to-individual-order operation, it is important to keep our salesmen productive at the customer's desk. In his absence from the plant, each one is backed by inside personnel who handle all production detail and are entrusted with the responsibility of answering within minutes any client's question concerning an order.

With us, everything is a split of a Sales Dollar! We first must sell and then produce. There is no mumbo-jumbo about which comes first — chicken or egg. Sales come first. Product is made to order.

No matter how fine our craftsmen produce, no matter how wonderful our costing system is — between costs and selling price one of our salesmen on the street has to have the ability to preserve that bit of margin between cost and selling price. It is that margin on which all progress in our industry depends.

A really good printing salesman is rightfully one of the highest paid men in the selling profession, and he earns every cent he gets. He serves two masters, his client and his house. Those with the native ability, the specialized training and just plain guts are the winners. We have been very lucky; we have several.

But, back to this business of sales volume and profits. To summarize:

We have developed our Salesmen to:

1. Know Their Market
2. Know Their Position In the Market

3. Know Their Market Potential
4. Know Their Costs
5. Know How To Serve

This formula has been our winner in holding the line on projected net profits. There just isn't room in the industry for all of us to be "giant" specialists. Those

of us who make up the great majority of our profession, those of us in the million dollar and less sales category, should be reminded that sometimes one can find the richness of life in the smaller undertakings. It might have been Confucius who said, "He who has understanding and knowledge knows that size is no criterion of real worth." ★

WEB-OFFSET TERMS

(Continued from Page 43)

signature-to-be into folding jaws on the second cylinder. At the same time a cut-off knife separates the tail of the signature from the web. The signature is carried around and released by the jaws and the cycle continues. The signature can be passed to the third cylinder in a similar manner to make the second parallel fold.

MAIL FOLD—See Second Chopper Fold.

METERING UNIT—Sometimes called In-Feed Rollers. Series of three rollers (two driven, one free) mounted on roll stand. Used to smooth the web and control its tension and speed as it feeds from roll into first printing unit.

NEWSPAPER FOLD—See Former Fold.

OPEN PRESS—Blanket-to-steel press.

PARALLEL FOLD—See Jaw Fold.

PASTER—Device used to apply fine line of paste on either or both sides of the web to produce finished booklets in which paste replaces stitching. Paste can be applied only in the direction of web travel.

QUARTER FOLD—See Chopper Fold.

REGISTER MOTOR—An optional attachment to enable circumferential register adjustments from a remote control station.

REWINDER—A unit which rewinds the printed web into a roll, should sheeting or folding not be desirable on the press.

RIBBON FOLD—Often called an Angle Bar Fold. Web is slit into multiple ribbons which use angle bars to bypass the former. Ribbons are brought together at the jaw folder for folding and cut-off into desired signatures.

RIDER ROLLER—See Dancer Roll.

ROLL STAND—Frame and mechanism for supporting roll of paper as it unwinds and feeds into the press.

SCHOOL BOOK PERFORATING—Special cross perforation parallel to the spine of jaw-folded signatures, used mostly in school examination books from which students tear answer sheets, leaving question parts of pages bound into book. Similar to perforating used in check book work.

SECOND CHOPPER FOLD—Also called a Mail Fold.

Accomplished in same manner as Chopper Fold, immediately following and parallel to it. Produces long narrow signatures that are 32-page multiples of number of webs used, $\frac{1}{8}$ web width x $\frac{1}{2}$ cut-off length.

SECOND PARALLEL FOLD—Made in jaw immediately after the First Parallel Fold and parallel to it (see Jaw Folder). Results in 16-page multiples of the number of webs in the press, signature size $\frac{1}{2}$ web width x $\frac{1}{4}$ cut-off length.

SHEETER—A rotary unit over which the web passes to be cut into individual sheets for stacking if desired.

SIDE ROLL STAND—Located at the side of the press rather than in line. An optional arrangement to permit most efficient space utilization. Web is guided into line by angle bars.

STACKER—Device attached to delivery conveyor to collect, compress and bundle signatures.

TABLOID FOLD—See First Parallel Fold.

TANDEM ROLL STAND—Dual or single stands, one behind the other, for feeding multiple webs through a press at the same time.

TUCKER BLADE—Reciprocating knife-like device used to force signature into jaws when making a jaw fold, or between rollers when making a Chopper Fold. See Jaw Folder.

TUCKER FOLD—See Jaw Fold.

TURNING BARS—See Angle Bars.

UNIT PERFECTING PRESS—See Blanket-To-Blanket Press.

WEB—Continuous ribbon of paper as it unwinds from a roll and threads through the press.

WEB CLEANER—Vacuum cleaner located ahead of the first printing unit to remove foreign particles that might damage the plates or blankets.

WEB LEAD—Amount of paper in the press when threaded.

WEB LEAD ROLLERS—Pair of grated idler rollers located between printing units on blanket-to-blanket presses in line with lower blanket cylinder. Used to support the web between units, preventing wrinkling and controlling web wrap. Individual rollers are used to guide web when bypassing individual printing units.

WRAPPING—Protective covering put on paper roll at mill. ★

THE NEW FACE OF AMERICA

The other day . . . a Facsimile Letter a second sent from Washington to Chicago . . . and vice versa. A battery of machines in use in the Washington Main Post Office and in Chicago . . . all **BAUMFOLDERED**.

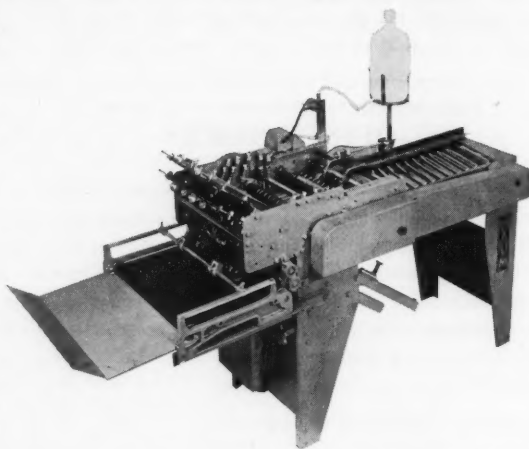
Congratulations to the engineering genius of outstanding American firms —

International Telephone & Telegraph Corporation; Bell & Howell; Stromberg-Carlson Division, General Dynamics Corporation; Haloid-Xerox; Pitney-Bowes.

The **BAUMFOLDER** has been standardized exclusively for this important development that annihilates time. We are proud to have been selected with the fine American firms who engineered the greatest advance concerning the Graphic Arts, since Gutenberg invented movable type.

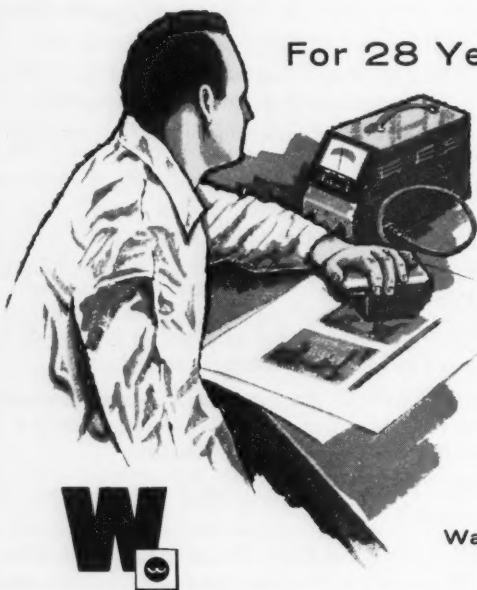
As the exact facsimile of the printed page leaves the "Magic" Black Box, the **BAUMFOLDER** takes it and folds it and securely seals it . . . all under cover . . . as no eye ever sees it except the sender and the recipient of the printed or written message, viz—"Sanctity" is totally preserved. The **BAUMFOLDER**, in the single, secret operation also perforates the edges of the folded, sealed signature, for quick easy opening by the recipient.

• Forty years' pioneering . . . continuous research . . . proving it **CAN** be done . . . has resulted in **AUTOMATION** at its **POWER-PROFIT BEST**. Various single operations are performed in **ONE . . . BAUMFOLDER-style . . . opening up new fields with NEW PROFIT**. May we serve you? I would appreciate your telephoning me (collect) . . . LOcust 8-4470.



RUSSELL ERNEST BAUM, Inc.

1540 Wood St., Philadelphia, Pa.



For 28 Years, the Same Six Words!

Since November 1932, we have dogmatically adhered to this policy:

"You can not compromise with quality"...

and now, with modern controls and the newest in "tools," coupled with craftsmanship, our job of producing offset plates and color separations of unrivaled quality . . . is more fool proof than ever.

Expanded facilities will permit immediate service to additional quality conscious clients. Contact us for a competent

Wayne Sales Counselor, you'll be glad you did!



WAYNE COLORPLATE CO. OF OHIO

ADVERTISING ART • PHOTOENGRAVING • LITHO COLOR PLATES

40 EAST FIRST ST. DAYTON 1, OHIO BA 2-1173

METAL DECORATING

(Continued from Page 95)

provide a broad catalog of ingredients which may safely be used in coating formulas, providing a finished sample is nearly insoluble when tested by relatively simple procedures with solvents which simulate food. So long as the formulating is carefully done and the whole process is free of manufacturing error, we have no reason to expect that the coatings in use today are likely to fail the test provided.

You can expect also that the customer will want to buy containers which do not violate any provision of the Food, Drug, and Cosmetic Act. Your response to this will be that the coating you supply complies with the terms of an existing regulation. Beyond this you have the same obligation to provide a quality product that is safe as you have for long years been accustomed to doing.

When the technology changes and new substances or entirely new systems of coatings are ready for use, we would expect a petition for an amendment to the regulation prescribing the conditions under which the new coatings may safely be used. As we see things now, the showing of safety would revolve around the degree to which the new substances are insoluble in the established group of solvents which we are using to simulate food.

In summary, if we assume that can coatings today are safe, the regulation may serve only to describe conditions which already exist. In so doing it complies with the procedure provided by the law and should present a basis upon which customer confidence can be assured. A more significant fact is that a regulation provides a point of departure and by amendment an orderly procedure to permit change to occur and at the same time protect the public health. This would then go back to my prior remark that the amendment is not so much needed to correct abuses in this area as to insure that new techniques be evaluated for safety before they are placed on the market. ★

DERIVATIVES

(Continued from Page 58)

should be representative of the type of scene reproduced. An ocean scene would undoubtedly be done with black and blue or blue-green. A desert scene would undoubtedly employ some browns.

In any event, this is an excellent way of introducing color to what otherwise might be a somewhat drab black-and-white print.

Halftones Without Dots

What we are referring to, of course, are line halftones. The contrast and the tone reproduction of a line halftone are controlled by the thickness of the printed line and not by dot size or area. Interesting effects can be created by using lines rather than the conventional dot pattern. The only equipment required to make a straight-line halftone is a process camera, a conventional glass cross-line screen, and a straight-line aperture in the lens. The straight-line aperture can easily be made from any black opaque paper.

Very interesting, unusual, and eye-appealing effects can be obtained by using straight lines of variable widths. In many cases, the reproduction will look as if it were hand sketched.

We talked earlier about making duotones without dots. To do this, another straight-line halftone could be made of the original but with aperture slot rotated 90° so that the lines would be at 90° for the two negatives.

When the black and the color straight-line halftones are printed down, the possibility of moire pattern is completely eliminated. This may be of special interest to silk screen printers who face a danger of moire pattern each time a halftone negative is brought in contact with the regular mesh of a silk screen.

These techniques should be of interest to many lithographers. Certainly there is no desire to displace halftones, but some of these variations will at times provide an unusual effect. ★

**More than 2,500
satisfied readers!**



... are you one?

Yes, more than 2,500 progressive lithographers have bought "The Magic of Making Halftones" in the past few months. Many have written to tell us how much they have profited from this practical, profusely illustrated book. It covers the complete subject of making offset halftones—tools, procedures, equipment, general rules and shop standards. Do you have your copy?

Order this useful book today at just \$4.25 a copy, shipped post paid any where in the world

Your money refunded in 10 days if not satisfied.

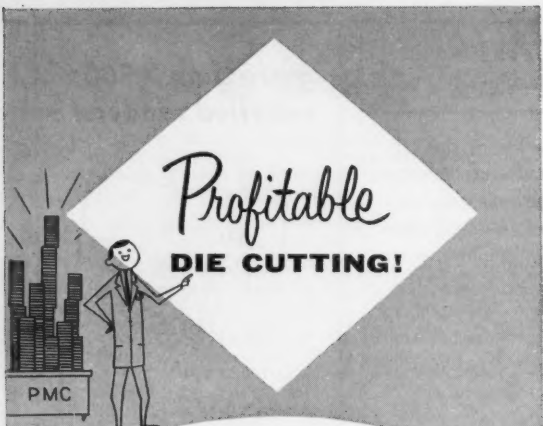
- Scores of photos showing 'right' and 'wrong' • Working tools: where to buy them and how to make them
- Setting camera • Focusing • Rescreening halftones • Shooting colored copy • Stripping • Platemaking • Special tricks

Make checks payable to
Litho Books
Box 31, Caldwell, N. J.

YES send me a copy of 'Halftones' at the price of \$4.25.

(Check must accompany order.)


Name
Street
CityZone.....
State



**Profitable
DIE CUTTING!**

A troublesome service can be turned into a profitable operation with the PMC Die Cutting Machine. Many printers and lithographers have found new business opportunities in a wide variety of work requiring an efficient, economical die cutting operation.

Speed—ruggedly built and simple to adjust, the PMC Die Cutting Machine can handle up to 300,000 pieces per hour; **simplicity**—die can be locked into a registered position in the machine in a few minutes, change of jobs made quickly and easily; **versatility**—handles a wide range of label, round cornering and specialty work and is efficient for both, long and short runs.



PMC

The Printing Machinery Company
436 COMMERCIAL SQUARE
CINCINNATI 2, OHIO

Write for additional information.



AIR LOADED — POSITIVE LOCKING

AERO-SHAFT

SAVES TIME . . . SAVES MONEY

The pneumatic Aero-Shaft holds any core firmly providing uniform tension that allows faster roll speeds.

Aero-Shaft eliminates core damage . . . deflates instantly for split-second removal from used to new core.

Double expanding rib section available for web widths over 40". Write today. Start saving with Aero-Shaft!

Folders, Rewinders, Embossers, Napkin and Core Machines, Letterpress and Flexographic Presses, Special Converting Machinery

**PAPER CONVERTING
MACHINE COMPANY**
GREEN BAY, WISCONSIN



New! on MICHIGAN AVE. at 12th St. in Chicago

*Modern Luxury in
Downtown Chicago*



Free Covered Parking for all guests

CHICAGO'S ONLY DOWNTOWN MOTEL — RIGHT ON MICHIGAN AVENUE ACROSS FROM GRANT PARK. Closest to all convention centers — museums — theatres and shopping. Register from your car. Every room excitingly furnished — tile bath with tub and shower, free TV, AM & FM, Hi-Fi radio, room controlled heating and air-conditioning. Self dialing phones — 24 hour switchboard and message service. Free ice cubes. Room service. Atmospheric restaurant and lounge. Sun deck. Private dining rooms. Free swimming privileges at Acres Cabana Club. Phone HA 7-8200. TWX CG-82

Closest to all Chicago convention centers. Suites and sample display rooms. Private meeting and banquet rooms.

Members:
AAA
Best Western Motels
Quality Courts

All major credit cards accepted.
Write for rates, free maps and folders.

Avenue MOTEL

Michigan Ave. at 12th St., Chicago, Ill.



QC INSTRUMENTS

(Continued from Page 41)

The LTF Register Rule is another important and useful tool in checking register. In a multi-press operation, such as I described before, a job may be handled on different types of equipment. For instance, the job may start on a 76" press with a .033" plate undercut and then be bronzed on a 64" press with an .018" plate undercut. The size of the print, from front to back of the sheet, will depend both on packing and on sheet stretch. The compensations that can be made by the second press, the one with the .018" undercut, are limited because of its small undercut. Therefore, it is important that the size of the print that is initially laid down be controlled—it cannot be left to chance.

For our initial investigation of this problem and for periodic checking, we use the register rule. As suggested by the LTF, the register rule is also useful in detecting flare along the back edge of the first print down when there is no prior print to compare it with. Misregister can occur here that will not be noticed until succeeding prints are made.

For this type of routine check, however, we have devised a simplification of the register rule measurement that can be used when we run stock paper sizes. To this end, standard marks are shot on the first plate which print in all four corners of the sheet.

A transparent plastic strip is prepared carrying register marks the same distance apart that they are on the plate. By placing this strip over the sheet, the spacing of the plate marks can be rapidly checked against the spacing of the standard marks on the plastic overlay.

This method can be used to check flare, length of print, or any similar feature. If the printed register marks are allowed to bleed off the sheet, then a number of consecutive sheets can be examined simultaneously by riffling and laying the overlay over all of them at once. In this way, variations due to multiple sheeting

can be detected.

Additionally, an item called the Sur-Check has come to our attention recently as an aid for register control. The Sur-Check is a lightweight, palm-sized gauge, into whose throat the sheet is inserted. A slide, which carries a reference mark, is then adjusted to coincide with any convenient mark that will show gripper bite or side-guide pull-over. Once set, the gauge can be used throughout the run to quickly and conveniently check the uniformity of the lay of all sheets.★

PHOTO CLINIC

(Continued from Page 61)

SEEING COLOURS, J. Bergmans, the Macmillan Company, 60 Fifth Avenue, New York 11, New York. 6 x 8 1/4", 80 pp., \$3.

This is an excellent and rather inexpensive introduction to a normally complex subject. The author's intention is to bridge the gap between the extremely simple and superficial text and the specialized, high technical tomes.

The 11 chapters discuss the physical properties of light, color, human vision, color temperature of light sources, color rendition, etc. Of considerable merit are the chapters which introduce the reader to an understanding of the I.C.I. color triangle.

The text is adequately supplemented by diagrams and charts. Of particular interest is a comparison of how a group of colors appear when viewed under different light sources—daylight, incandescent and monochromatic mixtures.

Although written for the novice, the color data presented will prove instructive even to the experienced color lithographer. Instructors in trade schools should find this book of value for both themselves and their students.

UNION-MANAGEMENT

(Continued from Page 36)

house lawyers in the guardhouse and encourage those with a broad unselfish viewpoint to counsel their men in this respect.

In most cases, negotiations are too extended and unproductive. Employ-

LITHOGRAPHERS MANUAL

An Encyclopedic two volume 1200 page treatise dealing with every phase of lithography. Written by 70 top authorities Edited by Victor Strauss Profusely illustrated. Large sections in four color process. three color and Bourges process.



A "must" for Advertisers, Printers, Lithographers, Letter Shops, Schools and Colleges — of real help to the artist, craftsmen and students of reproduction processes.

PARTIAL CONTENTS INCLUDES

An authentic history of lithography
Creative art and copy preparation
Camera procedures and materials
Color separation lithography
Masking for color correction
Stripping, opaquing, photo-composing
Platemaking procedures and materials
Press operating instructions for sixteen different offset presses
paper, ink, film and supplies used
cutting, binding, finishing operations
The flow of lithographic production
Metal lithography colotype
Education for lithography

Resources sections showing equipment and supplies follow each chapter thus providing valuable source information.

Two volume set \$25.00 plus shipping charges. \$1.50 east of the Mississippi and \$2.00 west.

Modern Lithography
Box 31, Caldwell, N. J.

Payment Enclosed ☐

Name
Street
City Zone
State

Schultz

DEEP ETCH CHEMICALS

Leading litho plants have been standardizing on Schultz Chemicals for over a decade.



**SCHULTZ
DEEP ETCH
CHEMICALS**

1240 W. Morse Ave.

Chicago 26, Ill.

B M

HALFTONE TINTS

IN **6** TONE
VALUES

In all screens to 133 line. Uniform dots . . . sharp . . . clean, complete selection for immediate delivery . . . on film or non strip glass. Call your Graphic Arts supplier—

BUCKBEE MEARS CO.

SAINT PAUL 1, MINNESOTA

Offset printing plates don't grow on trees!

Offset plates are made; we make them. Our thirty year's experience in color and in black and white work, assures you of printing plates of the highest quality.

Skilled Craftsmen, excelling in preparation of advertising art, commercial photography, offset plates (all types) and rotogravure plates, combine to afford you a complete service.

GRAPHIC ARTS CORPORATION of Ohio
110 OTTAWA ST. • TOLEDO 4, OHIO

New York Office 342 Madison Ave., Room 712
New York 17, New York

Chicago Office 201 North Wells St., Room 722
Chicago 6, Illinois

ers take time away from needed business management activities to negotiate. Every wasted hour in negotiations can mean a loss in sales which, in turn, means lost man hours for union members. Unreasonable selfish interests and conflicts caused by local political differences are troublesome and costly. The printing industry reportedly consists of 30,000 commercial plants in the U. S., excluding newspaper plants. Only 1,000 have 100 or more employees.

The remaining 29,000 plants, the majority of which are open shop plants, have an average of 15 employees per plant. Most employers wear many hats as far as duties are concerned. So, every effort should be made to reduce the man hours required for negotiations.

As an association, PIA is endeavoring, with some success, to educate employers as to the need for better management. The tremendous cost of new equipment, coupled with the very low percentage of profits in our industry, makes such an effort difficult and at times very discouraging. There are more mergers and failures on the horizon. Union leaders have a tremendous responsibility in seeing that their decisions and actions are based on realism and logic in producing more saleable products in peaceful procedures in return for an enviable status among the highest of wage earners.

With proper cooperation, tolerance and fairness, union and management can resolve these problems. Let's work together and provide the necessary ingredients to help our industry overcome these many difficulties and grow

steadily and healthily with peace and harmony.

I hope that union leaders will give serious consideration to these troublesome areas and do something constructive about them. The printing industry has been good to us — so let's be good to it by overcoming the obstacles which are retarding its progress.

I will close with this bit of wisdom: *"God grant me the strength to accept the things that I cannot change; the courage to change the things that can be changed; and the wisdom to know the difference between the two."* ★

BLACK and WHITE

(Continued from Page 33)

parencies are like people . . . no two of them alike.

Many Theories

About color process reproduction from the color transparency; there is a host of informative literature and instruction books on how to do it. They tell us to use a single mask, or a double mask, or a triple mask system; or better still, a double overlay mask. Or, still better, the latest masking craze is the camera-back masking method. Some say, "Make a highlight pre-mask and build into each separation." Others say, "Make three highlight masks and use separately with each negative respectively." There is a lot of talk about range, gamma, fogging, and flashing. There exist as many systems as there are authors.

There is, however, one necessity on which they all agree, and that is to be sure to include a gray scale. This gray scale seems to be the rallying point upon which the experts all heap

their hopes and predict their procedures. Few of them bother to tell us that the gray scale really isn't representative of the gray in the transparency itself. I don't recall having seen a transparency yet that didn't need some sort of color correction filter to justify this difference.

To further complicate this gray scale theory, there seems to be little consistency in the developing of transparencies to secure a gray that is neutral all the way up and down the scale. For instance, the highlights may be neutral to match our gray wedges, but are the middletones and shadows also neutral? Chances are they are not.

Lithographers have enough problems already with separations from transparencies, but these pointers are mentioned as something for you to think about.

The devices, the equipment, and materials used to control color are many. These items are important, but they are of little value without the people. The people are the really important ingredient. Men and women with an appreciation for, and an understanding of quality controls.

Consider this definition of quality by Will A. Foster:

"Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives, the cumulative experience of many masters of craftsmanship. Quality also marks the search for an ideal after the necessity has been satisfied and mere usefulness achieved." ★

finest quality

color PLATES

for offset lithography

STEVENSON

PHOTO COLOR CO.

400 PIKE ST., CINCINNATI 2, OHIO

CHICAGO LITHO PLATE GRAINING CO.

A COMPLETE COLOR OFFSET SERVICE
+
PLATEMAKING & GRAINING SINCE 1922

549 W. Fulton Street, Chicago 6, Illinois
Telephone: STate 2-8590

You need the best!

The best plates produce the best printing. Expert offset plate graining saves you money in the long run by permitting quality work and smooth press performance. The skill and experience of ALJEN SERVICE assures the best. Careful and competent handling of your plate problems. Zinc or aluminum plates, any size.

ALJEN ASSOCIATES

1215 Primrose Street

Cincinnati 23, Ohio

Efficiency Approved

A Film
Scribing Tool
scientifically
designed for
Ruling Negatives



Litho Ruled Forms - QUICKER - EASIER - BETTER

★ Perfect uniformity of rules—no film spoilage.
★ 6 cutting heads in set: 4 for single rules from hairline to 1-point rules; 2 cutting heads for double rules.

A postcard will bring descriptive literature

1729 E 4th ST *Scriber Specialties* DULUTH MINNESOTA

PRESSMEN'S INK HANDBOOK

by H. J. Wolfe

272 Pages

\$4.50 in U.S.A.

\$5.00 Foreign

1. PROPERTIES OF INKS
2. PURCHASING PRINTING INKS
3. THE PRIVATE INK PLANT
4. MANIPULATION OF INK
5. INORGANIC PIGMENTS
6. ORGANIC PIGMENTS
7. BLACK PIGMENTS

8. PRINTING INK VEHICLES
9. DRIERS AND DRYING
10. LETTERPRESS INKS
11. LITHOGRAPHIC INK
12. INTAGLIO PRINTING INKS
13. NEW TYPE OF INKS
14. TESTING OF INKS
15. INK PROBLEMS AND REMEDIES

INDUSTRY PUBLICATIONS, Box 31, Caldwell, N. J.
Enclosed is our check for \$4.50 (Foreign and
Canada \$5.00). Please send me one copy of the
PRESSMEN'S INK HANDBOOK.

Company

Address

By

CLASSIFIED ADVERTISING

Address all classified replies to Box Number, c/o Modern Lithography, P. O. Box 31, Caldwell, N. J.

Rates for classified advertisements are twenty cents per word; minimum charge \$3.00. Rate for individuals seeking employment is five cents per word, minimum charge \$1.00.

Advertisements of new machinery, products and services accepted at a rate of \$10.00 per column inch, minimum space one inch.

Copy closing date, tenth of the preceding month.

Checks must accompany all orders.

A GROWING OFFSET DEPARTMENT in an open shop, mid-south plant requires a superintendent who can handle personnel in all phases of art preparation, camera, plate making, and press. Experience necessary in color; preferred in school yearbook production. Write Box 733, c/o MODERN LITHOGRAPHY.

METAL LITHOGRAPHY ENGINEER. Must be familiar with design and manufacture of special purpose equipment, and have ability to set up equipment and controls necessary to do highest quality metal decorating. Send resume to Box 734, c/o MODERN LITHOGRAPHY.

LEARN WEB-FED OFFSET—Opportunity for sheet-fed pressmen to learn quality 4-color process printing as second pressmen on 5-unit perfecting web-fed presses. Modern plant in Miami, Florida. Good opportunity, permanent positions. Write Box 732, c/o MODERN LITHOGRAPHY.

SITUATIONS WANTED:

A-1 DOT ETCHER, ability to teach masking tech. to reproduce up to 75-80% of facsimile, little etch. Samples and references. Address Box 728, c/o MODERN LITHOGRAPHY.

WANTED: a progressive lithographer who is looking for a technical specialist to assume responsibility for plant improvement in methods, standards and control, with

emphasis on color. Box 729, c/o MODERN LITHOGRAPHY.

GRAPHIC ARTS TECHNICIAN interested in position with manufacturer or supplier as technical representative, or in product development and field testing. Background includes lengthy practical experience in printing production, research, plant modernization and product development. Address Box 730, c/o MODERN LITHOGRAPHY.

PLANT MANAGER-ADMINISTRATIVE ASSISTANT desires connections with progressive firm—14 years experience in all phases of offset, letterpress including binding also estimating, cost accounting and production analyst and controller. Desires

EQUIPMENT WANTED: Modern Metal Decorating line wanted. Must be in excellent condition. (Offset Press, Coater and Oven). Write proposals to Park Nameplate Co., Inc., 34-10 Linden Place, Flushing, New York.

WANTED: a 76" Single Color Offset Press. Write Box 735, c/o MODERN LITHOGRAPHY.

FOR SALE: 26 x 40" single color Harris LSQ109 offset press. Must sacrifice immediately. Excellent condition. Box 737, c/o MODERN LITHOGRAPHY.

acrolite
METAL REPELLENT
STOPS METAL BUILDUP!

UPGRADE YOURSELF!

SPECIAL COURSES
For Persons in the Trade
Learn the Latest Methods in

**PRESENSITIZED PLATE MAKING
COLOR WORK • COLOR SEPARATION
PRESSWORK • STRIPPING TECHNIQUES**

Hours to Suit Your Convenience
Write, Phone or Visit

MANHATTAN
SCHOOLS
OF **PRINTING**

88 West Broadway (Cor. Chambers St.),
N. Y. C. Near City Hall
Worth 2-4330

to relocate outside Chicago area, preferably east and south. Resume will be furnished to sincere parties. Address Box 731, c/o MODERN LITHOGRAPHY.

FOR SALE—One 40 x 48
Vallette Offset Proof Press
Motor Driven • Excellent Condition
Superior Engraving Co.
215 W. Superior St. • Chicago 10, Ill.

FOR SALE: Well established offset business. Going concern, skilled crew, fine reputation, located near Midwestern city. Selling for health reasons. Creative department, complete plate making, 4 presses, small bindery. Real opportunity. Address Box 736, c/o MODERN LITHOGRAPHY.

QUICKSET INK CONDITIONER
TRIK®
for work-&-turn litho and letterpress...
eliminates messy non-offset spray.
1 lb. can \$2.20 Send for Price List
CENTRAL COMPOUNDING COMPANY
1718 N. Damen Ave. • Chicago 47, Illinois
Mfrs. of Glazote, 20/20 Overprint Varnish, 33 & O-33
Ink Conditioners

acrolite
GLASS CLEANER
FOR
Crystal Clear Glass

**SHARPER HALFTONES
BRIGHTER COLORS**
33 INK CONDITIONERS **O-33**
FOR LETTERPRESS 1 lb. can \$2.20 FOR LITHO
Send for Price List
CENTRAL COMPOUNDING COMPANY
1718 North Damen Avenue • Chicago 47, Illinois
Mfrs. of Trix, Glazote, 20/20 Overprint Varnish

LITHOGRAPHERS
MOVE TO MIAMI
POSITIONS
OPEN FOR:
1 and 2-color and web-fed pressman, feeder-operators, strippers, dot etchers, color cameramen
JOURNEYMEN ONLY
For information write
A. D. WEISS LITHOGRAPH CO.
2218 N.W. 2ND AVE.
MIAMI, FLA.

HERBERT P. PASCHEL
Graphic Arts Consultant

Methods Analysis In-plant Training
Trouble-Shooting Color Correction Systems

53-51 65th Place, Maspeth 78, N. Y.
TWining 8-6635

LOOKING FOR A NEW JOB?

Plant Manager—Offset EAST—\$16,000-\$20,000
Production Manager — Book Plant MIDWEST—\$8,000-\$12,000
Working Foreman — Offset Platemaking EAST—\$9,300
Asst. Manager — Job Shop GA.—\$5,000-\$6,500
Foreman — Composing OHIO—\$8,000-\$9,000
Estimator—Offset OHIO—\$7,500-\$9,000
Salesmen — Printing Supplies — Equipment — Plates & Type

WANTED: Cameramen, platemakers, strippers, pressmen, compositors, proofreaders, monotype, folder operators, binderymen, offset pressmen.
GRAPHIC ARTS EMPLOYMENT SERVICE, Inc.
Helen M. Winters, Manager
Dept. M-12, 307 E. Fourth Street
Cincinnati 2, Ohio

COLOR SEPARATIONS

COMPARE!

Discounts on quantity
NO "UPS" OR EXTRAS!

4-COLOR POSITIVES

5x7 or smaller — \$65
8x10 — \$125

4-COLOR NEGATIVES

5x7 or smaller — \$73
8x10 — \$133

Union label available. Delivery approximately 7 working days. Serving the trade only.
Write or call today for free specimens and complete price-list (up to size 16" x 20").

CHAMPION COLOR CORP. 203 East 18th Street, New York 3, N. Y. GR 5-5960

Schultz

DEEP ETCH

CHEMICALS

Leading litho plants have
been standardizing on
Schultz Chemicals for
over a decade.



**SCHULTZ
DEEP ETCH
CHEMICALS**

1240 W. Morse Ave., Chicago 26, Ill.

WHY

... Why fight over ML every month when you can
have an extra copy for shop or home just by sitting
down right now and sending us your order.

One Year \$4

Two Years \$7

MODERN LITHOGRAPHY

Box 31

Caldwell, N. J.

FAST, EFFICIENT DRYERS

for

WEB-OFFSET

*Speed *Production *Economy

Dryer Specialist for over 25 years

B. OFFEN & CO.

29 East Madison St., Chicago, Ill.

Lorraine
ACTINA
Carbons



PAY FOR THEMSELVES in ...

for

Plate-Making • Photo-Printing • Photo-Composing
LETTERPRESS, LITHOGRAPHERS, GRAVURE and SILK SCREEN
producers in growing numbers experience the extra advantages of these
Carbons. They get brighter, steadier light with no bounce or sputter and
Better Results!

Franchise Dealerships Open

CARBONS, Inc., BOONTON, N. J.

**TIME & LABOR
Saving!**

**Improved
QUALITY!**

READS

EVERY WELL INFORMED LITHOGRAPHER

MODERN LITHOGRAPHY

EVERY MONTH

Timely Articles

Valuable information

To Manage Goodrich Ptg. Dept.

William A. Bailey, a foreman in the B. F. Goodrich printing department, has been named manager of the department. He succeeds James R. Bedell, who is now on a special assignment. Mr. Bailey, joined the company in 1929 as a job press feeder.

He left the company to work for Reserve Lithograph and Executive Press in Cleveland from 1933 to 1936, returning to B. F. Goodrich as a Monotype operator. During World War II he held supervisory positions at the Lone Star Ordnance Plant at Texarkana, Texas.

He returned to Akron in 1945 as foreman in the bindery and later held positions in salvage liquidation and work simplification. He has been foreman of the composing room since 1958.

HCM Appoints Tyrrel

William T. Tyrrel has been appointed service manager of H C M Corp., New York, distributing and service organization for the Klischograph electronic engraver high-speed offset presses and other graphic arts equipment.

Mr. Tyrrel will be responsible for coordinating the company's service activities throughout the entire country. In this capacity, he will supervise the training and performance of both dealer and H C M service personnel.



LOCAL BUYERS GUIDE

Advertising rates in the Local Buyer's Guide are: \$7.50 per column inch. Please mail copy and check or money order to Modern Lithography, P. O. Box 31, Caldwell, N. J.

NEW YORK

OFFSET PRINTING TO THE TRADE

Single Color Presses up to sheet size 42" x 58".
Perfecor Press up to sheet size 41" x 54".
Complete Plant Facilities

Call JOE LOCASCIO GRamercy 7-6100
N. Y. LITHOGRAPHING CORPORATION
52 East 19th Street New York 3, N. Y.

An advertisement

On these pages

Will be seen

By a nationwide

Lithographic

Market

Call
WILLOUGHBY'S

FOR YOUR SENSITIZED PHOTO LITHO NEEDS

- ✓ QUALITY SERVICE
- ✓ IMMEDIATE DELIVERY
- ✓ COMPLETE STOCKS

ANSCO DU PONT
EASTMAN KODAK
GEVAERT ILFORD

WILLOUGHBY'S
110 W. 32nd ST.
N.Y. 1-LO 4-1610

Cornerstone Set for Ludlow Research Building

Austin B. Mason, president of Ludlow Corp., Needham Heights, Mass., officiates at the cornerstone laying ceremony for the new research building at Needham Heights. Present were (left to right) Dr. A. W. Fisher, Jr., executive vice president, A. B. Mason, E. L. Turley, vice president

sales and Dr. H. H. Reynolds, vice president research. The new expanded research facility will be a three level addition to Ludlow headquarters. It will be utilized for the development of new and improved paper products for the graphic arts industry as well as the textile and plastic fields.

At the cornerstone laying are: (l. to r.) Dr. A. W. Fisher, A. B. Mason, Ludlow President, E. L. Turley, and Dr. H. H. Reynolds.



READERS:

Are you taking full advantage of your lithographic magazine?

THE staff of *Modern Lithography* has been trying, in several important ways, to make the pages of your magazine more valuable to you. Increased in-person coverage of litho club and trade association meetings has been one way. Interpretative articles on subjects of vital interest to you is another. That's the reason for our recent series on presensitized plates, three-color direct separation, and visits to typical litho shops and for our expanded coverage of the litho news in all parts of the United States and foreign countries.

Our climbing circulation figures indicate your appreciation of our efforts. But are you taking *full* advantage of your lithographic magazine? In past months, many of you have availed yourself of the services of our two regular columnists, *Frank Arbolino* (Press Clinic) and *Herbert P. Paschel* (Photographic Clinic). The purpose of this page is to remind you that if you have a troublesome problem regarding press or camera, these specialists are ready to help you solve it. If you are a subscriber to ML and have a question why not jot it down on the coupon below and send it along to us? We'll be glad to help you, and the service is free.

MODERN LITHOGRAPHY

Box 31, Caldwell, N. J.

☐ Mr. Arbolino
(Press)

☐ Mr. Paschel
(Photography)

My Question: _____

(Questions will not be answered by mail, but in an early issue of *Modern Lithography*)

((Only your initials will be used))

Name

Company

Address

INDEX to ADVERTISERS

A

Aljen, Inc. 116
Aluminum Company of America .. Nov.
Amalgamated Lithographers of
America75, 76
American Speed Light Corp. 106
American Type Founders23-26
Anaconda Aluminum Co. 57
Anchor Chemical Co., Inc. Nov.
Anso 15
Appleton Coated Paper Co., 85
Aristo Grid Lamp Products, Inc. Nov.
Arctic Lodges 96
Avenue Motel 112
Azoplate Corp. Nov.

B

Baldwin-Gegenheimer Co. Nov.
Baum, Inc., Russell Ernest 110
Beckett Paper Co. Oct.
Bell Hortenstine Co., The Nov.
Bergstrom Paper Co. 6
Sam'l Bingham's Son Mfg. Co. Nov.
Bond Equipment Co. Nov.
Bridgeport Engravers Supply Co., .. Nov.
Brown, W. A. Co. Nov.
Buckbee Mears Co. 114
ByChrome Co., Inc. 8

C

Cantine Co., Martin63, 64
Capital Regraining Co. Oct.
Carbons, Inc. 118
Carlson Co., Chesley F. 105
Champion Color Co. 118
Champion Paper Co.,21, 22
Chemco Photo Products Co. 10
Chicago Litho Plate Graining Co. .. 116
Consolidated Water Power
& Paper Co. 9
Crescent Ink and Color Co. Nov.
Cromwell Paper Co.11, 12

D

Dayco Dept., Dayton Industrial
Products Co. 13
Di-Noc Chemical Arts, Inc. Nov.
Dow Chemical Co. Nov.
du Pont de Nemours & Co.,
Inc., E. I. 7

E

Eastern Fine Paper and Pulp Div.
of Standard Packaging Corp.27, 28
Eastman Kodak Co. 29

F

Fisher Co., Oscar 86
Flint Ink Corp. Nov.

Fotographic Products Co. Nov.
Friden, Inc. 98

G

General Research and
and Supply Co.3rd Cover
Godfrey Roller Co. 19
Goerz American Optical Co., C. P. Nov.
Gevaert Co. of America,
Inc., The2nd Cover
Graphic Arts Corp. of Ohio 114
Graphic Supply Co. Nov.
Grumbacher Co., M. Nov.
Gurin-Rapport Co. 60

H

Hamilton Paper Co. Nov.
Hammermill Paper Co. Nov.
Hantscho Co., Inc., George Nov.
Harris-Seybold Div., of Harris-
Intertype Corp. Nov.
Hill Rubber Co. Nov.
HCM Corp. 88
Howard Paper Co.45, 46

I

Ideal Roller Co. 16
Ilford, Inc. Nov.
Interchemical Corp. Nov.
International Paper Company77, 78

J

Jomac Products Nov.

K

The Kendall Co.,
Fiber Products Division Nov.
Kimberly-Clark Corp. Nov.
Kleenstik Products Co. Nov.
KLM Royal Dutch Airlines 20

L

Lanston Unitronics Co. Nov.
Lawson Co., division of Miehle-Goss-
Dexter, Inc. Nov.
Litho Chemical & Supply Co. 18
Lithoplate, Inc.4th Cover
Ludlow Paper Co. Nov.
Ludlow Typograph Co. Nov.

M

Miehle Co., The, Div. of Miehle-
Goss-Dexter, Inc. Nov.
Miller Printing Machinery Co. Nov.
Minnesota Mining & Manufacturing
Co. Nov.
Mueller Color Plate Co.65, 66

N

National Association of
Photo-Lithographers 14

National Carbon Co., Div. of Union
Carbide Corp. Nov.
Nekoosa-Edwards Paper Co. Nov.
Northwest Paper Co. Nov.
nuArc Co., The 102
Nuclear Products Co. Nov.

O

Offen & Co., B. 118
Oxford Paper Co. Nov.
Oxy-Dry Sprayer Corp. 17

P

Paper Converting Machine Co. 116
Pitman, Harold ., Co. 90
Polychrome Corp. Nov.
Printing Machinery Co. 112

R

Rapid Roller Co. 30
RB and P Chemical and Supply Co. 61
Riegel Paper Co. Nov.
Rising Paper Co. Nov.
Roberts, Inc., Lewis 83
Roberts & Porter, Inc. 3
Roll-O-Graphic Corp. Nov.
Rosback, F. P. Co. 100
Royal Zenith Corp. 4
Rutherford Machinery Co., Div. of
Sun Chem. Co. Nov.

S

Saltzman, Inc., J. G. Oct.
Schmidt, H. & Co. Nov.
Schultz Deep Etch Chemicals114, 118
Scriber Specialties 118
Siebold, Inc., J. H. & G. B. Nov.
Sinclair & Valentine Co. Nov.
St. Regis Paper Co.67, 68
St. Louis Plate Graining Co. 107
Standard Paper Co. Nov.
Stark Laboratories, John Nov.
Stevenson Photo Color Co. 115
Strathmore Paper Co. Nov.
Strong Electric Corp., The Nov.
Supreme Photo Supply Co. Nov.

T

Teitelbaum Sons, Inc., N. Nov.

W

Wagner Litho Machinery Div., 92
Warren Co., S. D.73, 74
Wayne Colorplate Co. of Ohio 110
West Virginia Pulp & Paper Co.80, 81
Western Gear Corp.,—Puglisi-Dutro-
Inc. Nov.
World Color, Inc. 104

Y

Young Brothers Co. 94

(The advertisers' index has been accurately checked but no responsibility can be assumed for errors or omissions)

TALE ENDS

"LITHOGRAPHER Hennegan: Show Biz To Chain Stores," was the arresting headline of a feature article in a recent issue of *The Cincinnati Enquirer*. Concerned, of course, with John Hennegan, the article, by Martin J. Hogan, Jr., of the *Enquirer* staff, gave some interesting details on the growth of the company and the career of Mr. Hennegan. The firm is the outgrowth of a theatrical-business marriage.

The founders, John Hennegan's father, John Hennegan and William Donaldson were part owners of the *Billboard*, a locally published entertainment journal. The business itself grew out of a need for lithographs of theatrical posters. At about that time (1919) young John Hennegan joined the firm. He started as an apprentice lithographer, then served as salesman (1920), sales manager (1925 and president (1938).

A big part of the company's work is promotional material for Walt Disney productions ("We've been doing Disney's work since the first production of *Snow White* in 1937") but no longer does the firm handle much other movie promotional material.

"Our show promotion work is a very small percentage of our business," Mr. Hennegan is quoted as saying. Nowadays the firm concentrates on such things as display posters for Top Value Stamps and *Family Circle* magazine, supermarket displays and greeting cards.

If you were asked to define the term "printing ink," do you think you could do it? Sound silly? Well the national Association of Printing Ink Makers, discovered recently that it did not have an official definition of the substance. A call for ideas

went out and, according to Herbert B. Livesey, executive secretary of the association, 19 ink makers sent in 19 different answers.

Finally accepted by the association board was one submitted by Tom Craig of Sun Chemical Corp. In his report on the board's action, appearing in the organization's official publication, *American Ink Maker*, Mr. Livesey said Mr. Craig used it when he was with the War Production Board.

To quote—"Printing ink includes any fluid or viscous materials or compositions of materials used in printing, impressing, stamping or transferring upon paper or paper-like substances, wood, fabrics, plastics, films or metal by the recognized mechanical reproduction process employed in printing, publishing and related services."



Favorite pastime of lithographers, we would guess, is fishing. Here Harold Keen, plant superintendent of Baronet Litho Co., Inc., Johnstown, N. Y., proudly displays the impressive results of a recent fishing trip—a 16-lb. blue fish and a 10-lb. striped bass, caught off Cape Cod on Oct. 9.

One of the ink board's members brought up another question. "Which is correct," he asked, "lithography or offset?" Mr. Livesey reported that the board accepted the definition supplied by the Lithographic Technical Foundation, as follows: "Lithography is the process and offset or offset-lithography the most commonly used method." ★



Here's a press built to handle popular litho sheet sizes, that offers unusual effects on short or long runs, with greater speed and operating efficiency than has ever been possible before. Model 64 handles sheets up to 44" x 64" . . . everything from 16 lb. bond to 100 pt. board and corrugated. It prints with any ink, coating, adhesive or special formulation made for screen process . . . fluorescents, metallics, liquid laminates, remoistening and pressure sensitive adhesives and other specialties for new combination effects. Operates at any speed up to 2000 sheets per hour.

60 SERIES AUTOMATIC SCREEN PROCESS PRESS...MODEL 64

Model 64 is a "push button automatic" press, with all finger-tip controls on one central panel. It has the new positive vacuum tape delivery system and stepless speed electronic drive. Model 64 has everything you've been looking for in a screen process press as a partner for your litho equipment . . . other 60 Series models, 20" x 26", 24" x 34", 30" x 44", 42" x 58", 44" x 64", 52" x 76" . . . why not investigate right away?



from the

largest to the smallest in screen process presses . . .

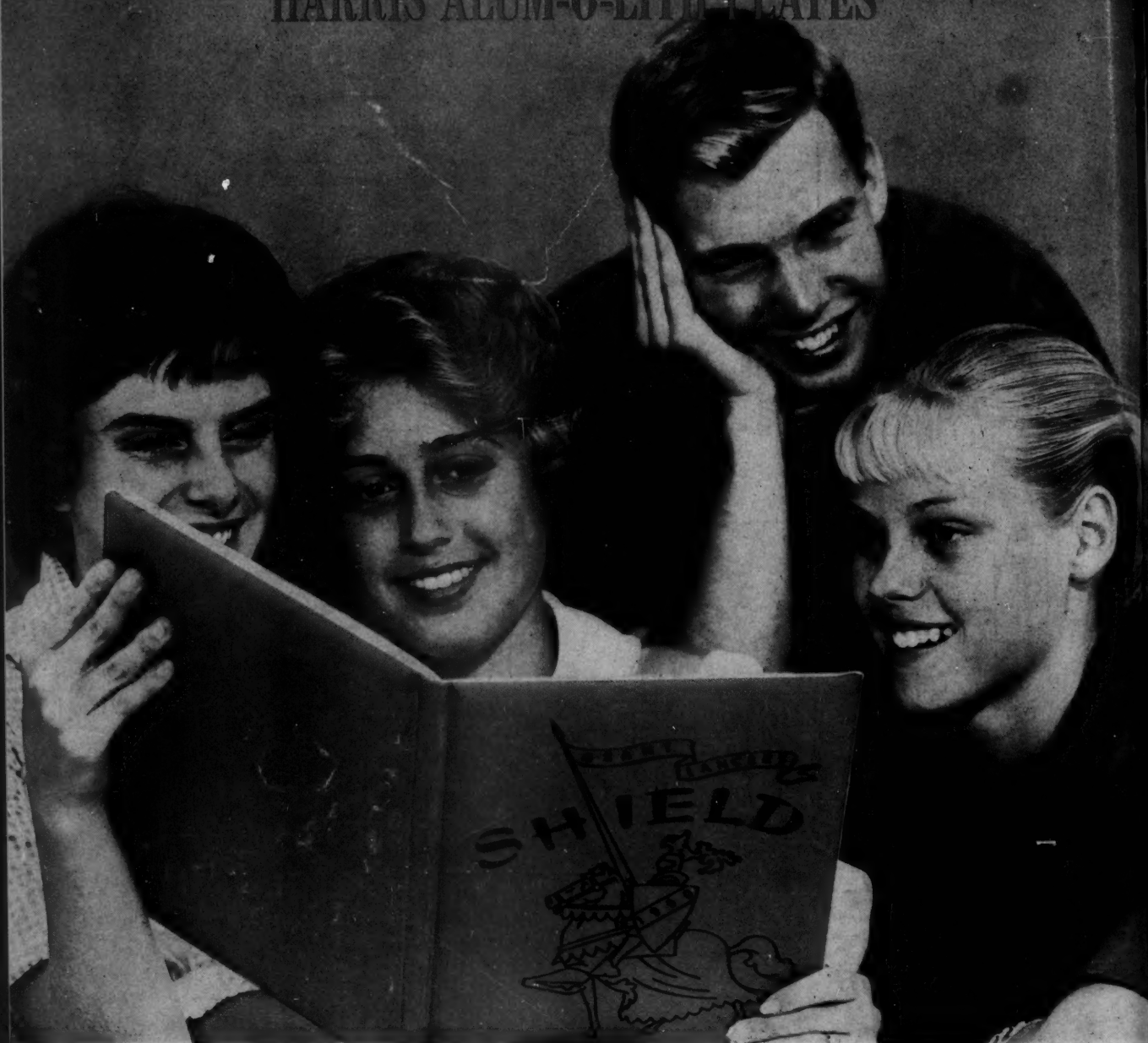
General Research, Inc.

572 S. DIVISION AVE. • GRAND RAPIDS 3, MICHIGAN



THE "COOLEST" YEARBOOKS ARE PRINTED WITH HARRIS ALUM-O-LITH PLATES

17



Harris Alum-O-Lith Plates turn out the *sharpest* halftones and line work. But our teenage friends tell us that "coolest" is a *much* more hep word. So take your choice. *Cool* or *sharp*. Harris plates out-perform the others for three reasons: (1) Heaviest gauge — (size for size) no stretch, tear or kink. (2) Flattest surface — stretcher-leveled for total contact. (3) Micro-Surfaced — for advantages of *both* smooth and grained surface plates. Compare! Yearbooks, metal decorating, business forms, full color work — you name it — Harris Alum-O-Lith plates deliver *professional* results every time.



LITHOPLATE, INC.

A Subsidiary of Harris-Intertype Corporation
Industrial Park Street, Covina, California
5308 Blanche Avenue, Cleveland 27, Ohio

